

=> fil reg

FILE 'REGISTRY' ENTERED AT 09:16:06 ON 21 OCT 2004  
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STRUCTURE FILE UPDATES: 20 OCT 2004 HIGHEST RN 766487-31-4  
DICTIONARY FILE UPDATES: 20 OCT 2004 HIGHEST RN 766487-31-4

TSCA INFORMATION NOW CURRENT THROUGH MAY 21, 2004

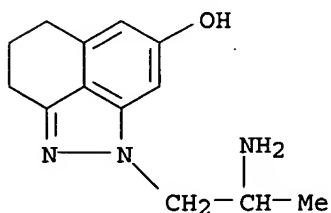
Please note that search-term pricing does apply when  
conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more  
information enter HELP PROP at an arrow prompt in the file or refer  
to the file summary sheet on the web at:  
<http://www.cas.org/ONLINE/DBSS/registryss.html>

=> d l33 ide can tot

L33 ANSWER 1 OF 10 REGISTRY COPYRIGHT 2004 ACS on STN  
RN 477965-70-1 REGISTRY  
CN Benz[cd]indazol-4-ol, 2-(2-aminopropyl)-2,6,7,8-tetrahydro-,  
dihydrochloride (9CI) (CA INDEX NAME)  
OTHER NAMES:  
CN 2-(2-Aminopropyl)-2,6,7,8-tetrahydrobenzo[cd]indazol-4-ol dihydrochloride  
MF C13 H17 N3 O . 2 Cl H  
SR CA  
LC STN Files: CA, CAPLUS, USPATFULL  
DT.CA Caplus document type: Patent  
RL.P Roles from patents: BIOL (Biological study); PREP (Preparation); USES  
(Uses)  
CRN (477965-61-0)



● 2 HCl

1 REFERENCES IN FILE CA (1907 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 138:24711

L33 ANSWER 2 OF 10 REGISTRY COPYRIGHT 2004 ACS on STN  
RN 477965-69-8 REGISTRY  
CN Pyrazolo[3,4,5-de]isoquinolin-7-ol, 1-(2-aminopropyl)-1,3,4,5-tetrahydro-4-

methyl- (9CI) (CA INDEX NAME)

## OTHER NAMES:

CN 1-(2-Aminopropyl)-4-methyl-1,3,4,5-tetrahydropyrazolo[4,3,2-de]isoquinolin-7-ol

FS 3D CONCORD

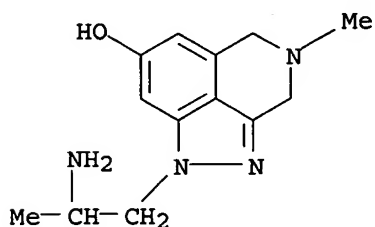
MF C13 H18 N4 O

SR CA

LC STN Files: CA, CAPLUS, USPATFULL

DT.CA Caplus document type: Patent

RL.P Roles from patents: BIOL (Biological study); PREP (Preparation); USES (Uses)



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 138:24711

L33 ANSWER 3 OF 10 REGISTRY COPYRIGHT 2004 ACS on STN

RN 477965-68-7 REGISTRY

CN 1H-Pyrano[4,3,2-cd]indazol-7-ol, 1-(2-aminopropyl)- (9CI) (CA INDEX NAME)

## OTHER NAMES:

CN 1-(2-Aminopropyl)-5H-pyrano[4,3,2-cd]indazol-7-ol

FS 3D CONCORD

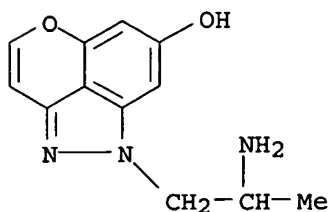
MF C12 H13 N3 O2

SR CA

LC STN Files: CA, CAPLUS, USPATFULL

DT.CA Caplus document type: Patent

RL.P Roles from patents: BIOL (Biological study); PREP (Preparation); USES (Uses)



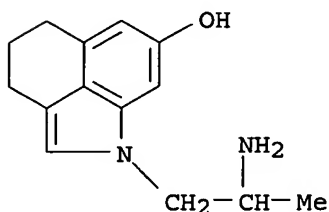
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1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 138:24711

L33 ANSWER 4 OF 10 REGISTRY COPYRIGHT 2004 ACS on STN  
 RN 477965-67-6 REGISTRY  
 CN Benz[cd]indol-7-ol, 1-(2-aminopropyl)-1,3,4,5-tetrahydro- (9CI) (CA INDEX NAME)  
 OTHER NAMES:  
 CN 1-(2-Aminopropyl)-1,3,4,5-tetrahydrobenzo[cd]indol-7-ol  
 FS 3D CONCORD  
 MF C14 H18 N2 O  
 SR CA  
 LC STN Files: CA, CAPLUS, USPATFULL  
 DT.CA Caplus document type: Patent  
 RL.P Roles from patents: BIOL (Biological study); PREP (Preparation); USES (Uses)

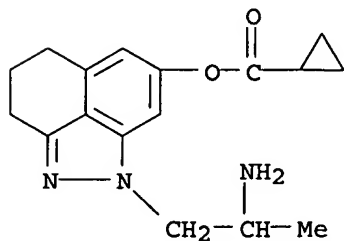


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1 REFERENCES IN FILE CA (1907 TO DATE)  
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 138:24711

L33 ANSWER 5 OF 10 REGISTRY COPYRIGHT 2004 ACS on STN  
 RN 477965-66-5 REGISTRY  
 CN Cyclopropanecarboxylic acid, 2-(2-aminopropyl)-2,6,7,8-tetrahydrobenz[cd]indazol-4-yl ester (9CI) (CA INDEX NAME)  
 OTHER NAMES:  
 CN Cyclopropanecarboxylic acid 2-(2-aminopropyl)-2,6,7,8-tetrahydrobenzo[cd]indazol-4-yl ester  
 FS 3D CONCORD  
 MF C17 H21 N3 O2  
 SR CA  
 LC STN Files: CA, CAPLUS, USPATFU  
 DT.CA Caplus document type: Patent  
 RL.P Roles from patents: BIOL (Bio (Uses)



Compound # 6 of  
 claim 5  


---

 This compound IS  
NOT covered by  
 claim 1 !!

USES

\*\*PROPERTY DATA AVAILABLE IN THE 'PRC. -----

1 REFERENCES IN FILE CA (1907 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 138:24711

L33 ANSWER 6 OF 10 REGISTRY COPYRIGHT 2004 ACS on STN

RN 477965-65-4 REGISTRY

CN Benz[cd]indazole-1(3H)-ethanamine, 6-fluoro-4,5-dihydro-7-methoxy- $\alpha$ -methyl- (9CI) (CA INDEX NAME)

OTHER NAMES:

CN 2-(6-Fluoro-7-methoxy-4,5-dihydro-3H-benzo[cd]indazol-1-yl)-1-methylethylamine

FS 3D CONCORD

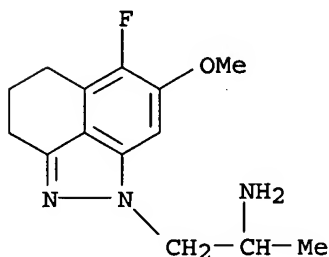
MF C14 H18 F N3 O

SR CA

LC STN Files: CA, CAPLUS, USPATFULL

DT.CA Caplus document type: Patent

RL.P Roles from patents: BIOL (Biological study); PREP (Preparation); USES (Uses)



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1907 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 138:24711

L33 ANSWER 7 OF 10 REGISTRY COPYRIGHT 2004 ACS on STN

RN 477965-64-3 REGISTRY

CN Benz[cd]indazol-4-ol, 2-(2-aminopropyl)-5-fluoro-2,6,7,8-tetrahydro- (9CI) (CA INDEX NAME)

OTHER NAMES:

CN 2-(2-Aminopropyl)-5-fluoro-2,6,7,8-tetrahydrobenzo[cd]indazol-4-ol

FS 3D CONCORD

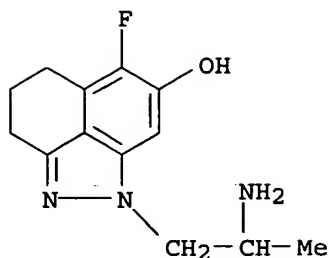
MF C13 H16 F N3 O

SR CA

LC STN Files: CA, CAPLUS, USPATFULL

DT.CA Caplus document type: Patent

RL.P Roles from patents: BIOL (Biological study); PREP (Preparation); USES (Uses)

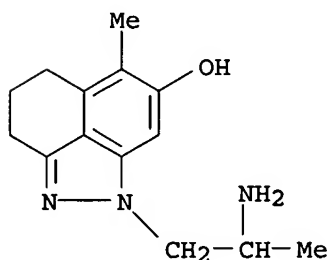


\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1907 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 138:24711

L33 ANSWER 8 OF 10 REGISTRY COPYRIGHT 2004 ACS on STN  
RN 477965-63-2 REGISTRY  
CN Benz[cd]indazol-4-ol, 2-(2-aminopropyl)-2,6,7,8-tetrahydro-5-methyl- (9CI)  
(CA INDEX NAME)  
OTHER NAMES:  
CN 2-(2-Aminopropyl)-5-methyl-2,6,7,8-tetrahydrobenzo[cd]indazol-4-ol  
FS 3D CONCORD  
MF C14 H19 N3 O  
SR CA  
LC STN Files: CA, CAPLUS, USPATFULL  
DT.CA CAplus document type: Patent  
RL.P Roles from patents: BIOL (Biological study); PREP (Preparation); USES  
(Uses)



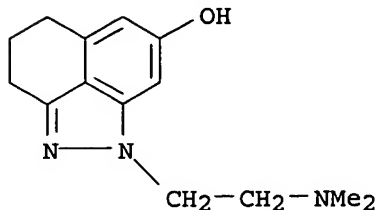
\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1907 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 138:24711

L33 ANSWER 9 OF 10 REGISTRY COPYRIGHT 2004 ACS on STN  
RN 477965-62-1 REGISTRY  
CN Benz[cd]indazol-4-ol, 2-[2-(dimethylamino)ethyl]-2,6,7,8-tetrahydro- (9CI)  
(CA INDEX NAME)  
OTHER NAMES:  
CN 2-(2-Dimethylaminoethyl)-2,6,7,8-tetrahydrobenzo[cd]indazol-4-ol  
FS 3D CONCORD  
MF C14 H19 N3 O  
SR CA

LC STN Files: CA, CAPLUS, USPATFULL  
 DT.CA Caplus document type: Patent  
 RL.P Roles from patents: BIOL (Biological study); PREP (Preparation); USES (Uses)



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1907 TO DATE)  
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 138:24711

L33 ANSWER 10 OF 10 REGISTRY COPYRIGHT 2004 ACS on STN

RN 477965-61-0 REGISTRY

CN Benz[cd]indazol-4-ol, 2-(2-aminopropyl)-2,6,7,8-tetrahydro- (9CI) (CA INDEX NAME)

OTHER NAMES:

CN 2-(2-Aminopropyl)-2,6,7,8-tetrahydrobenzo[cd]indazol-4-ol

FS 3D CONCORD

MF C13 H17 N3 O

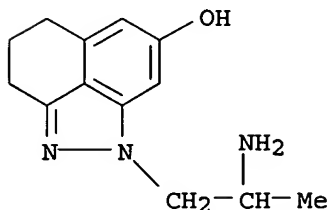
CI COM

SR CA

LC STN Files: CA, CAPLUS, USPATFULL

DT.CA Caplus document type: Patent

RL.P Roles from patents: BIOL (Biological study); PREP (Preparation); USES (Uses)



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1907 TO DATE)  
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 138:24711

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(FILE 'HOME' ENTERED AT 08:41:40 ON 21 OCT 2004)  
 SET COST OFF

FILE 'HCAPLUS' ENTERED AT 08:41:50 ON 21 OCT 2004

L1 1 S US20040106597/PN OR (US2003-721204# OR WO2002-US17114 OR US20  
E MAY J/AU  
L2 178 S E3-E6  
E MAY JES/AU  
L3 53 S E4-E8  
E DANTANARAYANA/AU  
L4 26 S E4-E7  
E ANURA/AU  
E ALCON/PA,CS  
E ALCOM/PA,CS  
L5 868 S E3-E101  
SEL RN L1

FILE 'REGISTRY' ENTERED AT 08:46:51 ON 21 OCT 2004

L6 41 S E1-E41  
L7 9 S 477965-61-0 OR 477965-62-1 OR 477965-63-2 OR 477965-64-3 OR 4  
SEL RN  
L8 1 S E42-E50/CRN  
L9 10 S L7,L8  
L10 STR  
L11 STR L10  
L12 0 S L11  
L13 STR L11  
L14 0 S L13  
L15 SCR 2039 OR 2079 OR 2050 OR 2049 OR 2048 OR 2053 OR 2052 OR 205  
L16 1 S L13 NOT L15 SAM  
L17 SCR 2077  
L18 1 S L13 NOT (L15 OR L17) SAM  
L19 SCR 2127  
L20 0 S L13 NOT (L15 OR L19) SAM  
L21 STR L13  
L22 0 S L21 NOT L15 SAM  
L23 0 S L21 NOT (L15 OR L19) SAM  
L24 STR L13  
L25 0 S L24  
BATCH L24 SHIAO721/B SSS FULL  
L26 36 S L6 AND NR>=3  
L27 5 S L6 NOT L26  
L28 27 S L26 NOT L7  
L29 13 S L28 AND PYRAN?  
L30 14 S L28 NOT L29  
L31 4 S L30 AND C13H17N3O  
SEL RN 4  
L32 1 S E51  
L33 10 S L9,L32

FILE 'HCAOLD' ENTERED AT 09:15:20 ON 21 OCT 2004

L34 0 S L33

FILE 'USPATFULL, USPAT2' ENTERED AT 09:15:26 ON 21 OCT 2004

L35 1 S L33

FILE 'HCAPLUS' ENTERED AT 09:15:31 ON 21 OCT 2004

L36 1 S L33  
L37 1 S L36 AND L1-L5  
L38 1072 S L1-L5 NOT L37  
SAV TEMP L38 SHIAO721A/A

FILE 'REGISTRY' ENTERED AT 09:16:06 ON 21 OCT 2004

=> fil uspatall

FILE 'USPATFULL' ENTERED AT 09:16:16 ON 21 OCT 2004  
CA INDEXING COPYRIGHT (C) 2004 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'USPAT2' ENTERED AT 09:16:16 ON 21 OCT 2004  
CA INDEXING COPYRIGHT (C) 2004 AMERICAN CHEMICAL SOCIETY (ACS)

=> d l35 bib abs hitstr

L35 ANSWER 1 OF 1 USPATFULL on STN

AN 2004:139421 USPATFULL

TI Novel fused indazoles and indoles and their use for the treatment of  
glaucoma

IN May, Jesse A., Fort Worth, TX, UNITED STATES

Dantanarayana, Anura P., Fort Worth, TX, UNITED STATES

PI US 2004106597 A1 20040603

AI US 2003-721204 A1 20031125 (10)

RLI Continuation of Ser. No. WO 2002-US17114, filed on 30 May 2002, PENDING

PRAI US 2001-295428P 20010601 (60)

DT Utility

FS APPLICATION

LREP KILYK & BOWERSOX, P.L.L.C., 53 A EAST LEE STREET, WARRENTON, VA, 20186

CLMN Number of Claims: 19

ECL Exemplary Claim: 1

DRWN No Drawings

LN.CNT 924

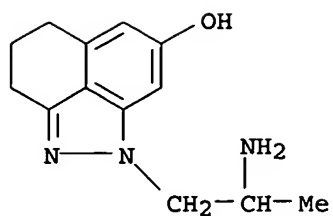
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Novel fused indazoles and indoles are disclosed. Also disclosed are  
methods for the lowering and controlling of normal or elevated  
intraocular pressure as well as a method for the treatment of glaucoma  
using compositions containing one or more of the compounds of the  
present invention.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

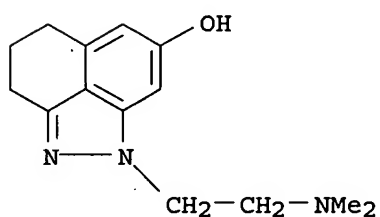
IT 477965-61-0P, 2-(2-Aminopropyl)-2,6,7,8-  
tetrahydrobenzo[cd]indazol-4-ol 477965-62-1P,  
2-(2-Dimethylaminoethyl)-2,6,7,8-tetrahydrobenzo[cd]indazol-4-ol  
477965-63-2P, 2-(2-Aminopropyl)-5-methyl-2,6,7,8-  
tetrahydrobenzo[cd]indazol-4-ol 477965-64-3P,  
2-(2-Aminopropyl)-5-fluoro-2,6,7,8-tetrahydrobenzo[cd]indazol-4-ol  
477965-65-4P, 2-(6-Fluoro-7-methoxy-4,5-dihydro-3H-  
benzo[cd]indazol-1-yl)-1-methylethylamine 477965-66-5P,  
Cyclopropanecarboxylic acid 2-(2-aminopropyl)-2,6,7,8-  
tetrahydrobenzo[cd]indazol-4-yl ester 477965-67-6P,  
1-(2-Aminopropyl)-1,3,4,5-tetrahydrobenzo[cd]indol-7-ol  
477965-68-7P, 1-(2-Aminopropyl)-5H-pyrano[4,3,2-cd]indazol-7-ol  
477965-69-8P, 1-(2-Aminopropyl)-4-methyl-1,3,4,5-  
tetrahydropyrazolo[4,3,2-de]isoquinolin-7-ol 477965-70-1P,  
2-(2-Aminopropyl)-2,6,7,8-tetrahydrobenzo[cd]indazol-4-ol dihydrochloride  
(drug candidate; preparation of novel fused indazoles and indoles with 5-HT2  
receptor activity for use in the treatment of glaucoma)  
RN 477965-61-0 USPATFULL  
CN Benz[cd]indazol-4-ol, 2-(2-aminopropyl)-2,6,7,8-tetrahydro- (9CI) (CA  
INDEX NAME)





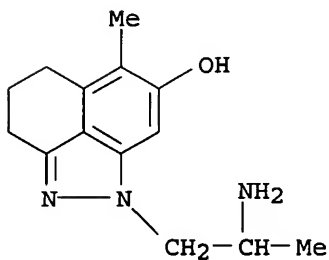
RN 477965-62-1 USPATFULL

CN Benz[cd]indazol-4-ol, 2-[2-(dimethylamino)ethyl]-2,6,7,8-tetrahydro- (9CI)  
(CA INDEX NAME)



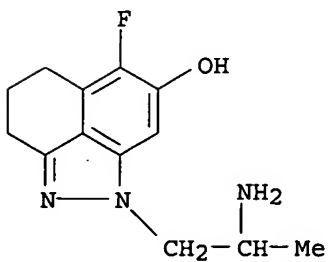
RN 477965-63-2 USPATFULL

CN Benz[cd]indazol-4-ol, 2-(2-aminopropyl)-2,6,7,8-tetrahydro-5-methyl- (9CI)  
(CA INDEX NAME)



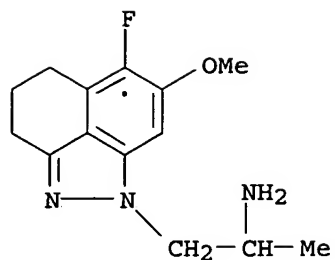
RN 477965-64-3 USPATFULL

CN Benz[cd]indazol-4-ol, 2-(2-aminopropyl)-5-fluoro-2,6,7,8-tetrahydro- (9CI)  
(CA INDEX NAME)



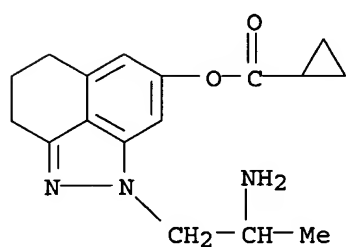
RN 477965-65-4 USPATFULL

CN Benz[cd]indazole-1(3H)-ethanamine, 6-fluoro-4,5-dihydro-7-methoxy-α-methyl- (9CI) (CA INDEX NAME)



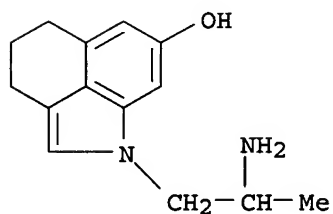
RN 477965-66-5 USPATFULL

CN Cyclopropanecarboxylic acid, 2-(2-aminopropyl)-2,6,7,8-tetrahydrobenz[cd]indazol-4-yl ester (9CI) (CA INDEX NAME)



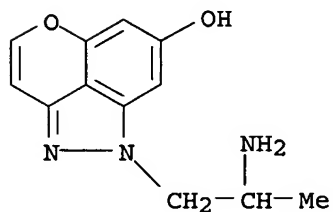
RN 477965-67-6 USPATFULL

CN Benz[cd]indol-7-ol, 1-(2-aminopropyl)-1,3,4,5-tetrahydro- (9CI) (CA INDEX NAME)



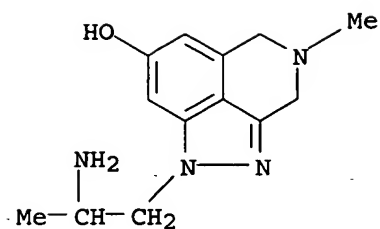
RN 477965-68-7 USPATFULL

CN 1H-Pyrano[4,3,2-cd]indazol-7-ol, 1-(2-aminopropyl)- (9CI) (CA INDEX NAME)

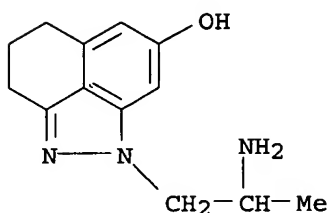


RN 477965-69-8 USPATFULL

CN Pyrazolo[3,4,5-de]isoquinolin-7-ol, 1-(2-aminopropyl)-1,3,4,5-tetrahydro-4-methyl- (9CI) (CA INDEX NAME)



RN 477965-70-1 USPATFULL

CN Benz[cd]indazol-4-ol, 2-(2-aminopropyl)-2,6,7,8-tetrahydro-,  
dihydrochloride (9CI) (CA INDEX NAME)

● 2 HCl

=&gt; fil hcaplus

FILE 'HCAPLUS' ENTERED AT 09:16:24 ON 21 OCT 2004

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

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FILE COVERS 1907 - 21 Oct 2004 VOL 141 ISS 17

FILE LAST UPDATED: 20 Oct 2004 (20041020/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=&gt; d all hitstr l37

L37 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 2002:946270 HCAPLUS

DN 138:24711

ED Entered STN: 13 Dec 2002

TI Novel fused indazoles and indoles with 5-HT2 receptor activity, and their

use for lowering of intraocular pressure in the treatment of glaucoma

IN May, Jesse A.; Dantanarayana, Anura P.

PA Alcon, Inc., Switz.

SO PCT Int. Appl., 35 pp.

CODEN: PIXXD2

DT Patent

LA English

IC ICM C07D231-54

ICS A61K031-416

CC 28-8 (Heterocyclic Compounds (More Than One Hetero Atom))

Section cross-reference(s): 1, 27

FAN.CNT 1

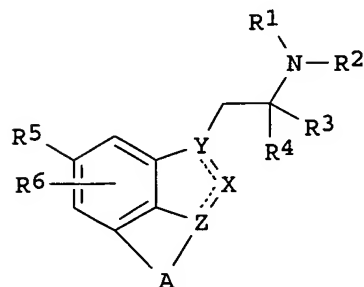
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	RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
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	R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR			
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PRAI	US 2001-295428P	P	20010601 <--		
	WO 2002-US17114	W	20020530 <--		

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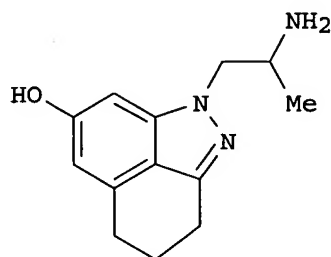
PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 2002098860	ICM	C07D231-54
	ICS	A61K031-416

OS MARPAT 138:24711

GI



I



II

*Self*

AB Novel fused indazoles and indoles are disclosed. Also disclosed are methods for the lowering and controlling of normal or elevated intraocular pressure, as well as a method for the treatment of glaucoma, using compns. containing one or more of the invention compds. In particular, compds. I are claimed [wherein R1 and R2 are independently chosen from H or alkyl; R3 and R4 are independently chosen from H or alkyl, or R3, R4, and the C atom to which they are attached form cycloalkyl; or R2 and R3 together are (CH2)m to form a saturated heterocycle; R5 is chosen from OH, alkoxy, alkyl, halogen, or OC(O)W; R6 is chosen from H, halogen, or (un)substituted alkyl; R7 and R8 are H or alkyl; W is (un)substituted alkyl, NR7R8,

NR7CH2(CH2)nNR7R8, O-alkyl, or (un)substituted alkenyl; m is 3 or 4; n is 2 or 3; A is a 5- to 7-membered ring optionally containing one heteroatom chosen from NR7, O, or S; X is either N or C; Y and Z are either N or C, wherein Y and Z are different; and the dashed bonds denote a suitably appointed single and double bond; or pharmaceutically acceptable salts or solvates thereof]. Nine specific compds. I are claimed per se, and these compds. plus 13 addnl. unprepd. compds. are claimed in corresponding methods of lowering intraocular pressure or treating glaucoma. For instance, title compound II.2HCl was prepared in 8 steps from 1-amino-5,6,7,8-tetrahydronaphthalene (III). The sequence involved: (1) nitration of III in the 2- and 3-positions; (2) diazotization with cyclization to give a benzopyrazole ring; (3) N-alkylation with propylene oxide; (4) hydrogenation of the nitro group to amino; (5) diazotization and hydroxylation of the formed amino group; (6) benzylation of the formed phenolic hydroxy group; (7) mesylation of the alkanolic hydroxy group and conversion to the azide; and (8) hydrogenation of the azide and acidification. II.2HCl bound to rat cortical 5-HT<sub>2</sub> receptors in vitro with an IC<sub>50</sub> of 0.714 nM, vs. 0.941 for 5-HT itself. This compound also showed agonist activity at rat vascular 5-HT<sub>2</sub> receptors in a phosphoinositide turnover assay, and reduced intraocular pressure in conscious cynomolgus monkeys by about 20% for at least 6 h at a dose of 300 µg (topical).

- ST indazole indole prepn 5HT<sub>2</sub> receptor agonist antagonist treatment glaucoma; serotonergic agonist antagonist indazole indole prepn intraocular antihypertensive
- IT 5-HT agonists  
5-HT antagonists  
(5-HT<sub>2A</sub>; preparation of novel fused indazoles and indoles with 5-HT<sub>2</sub> receptor activity for use in the treatment of glaucoma)
- IT 5-HT receptors  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(binding to; preparation of novel fused indazoles and indoles with 5-HT<sub>2</sub> receptor activity for use in the treatment of glaucoma)
- IT 5-HT agonists  
5-HT antagonists  
Antiglaucoma agents  
Antihypertensives  
(preparation of novel fused indazoles and indoles with 5-HT<sub>2</sub> receptor activity for use in the treatment of glaucoma)
- IT Hypertension  
(treatment of intraocular; preparation of novel fused indazoles and indoles with 5-HT<sub>2</sub> receptor activity for use in the treatment of glaucoma)
- IT Glaucoma (disease)  
(treatment of; preparation of novel fused indazoles and indoles with 5-HT<sub>2</sub> receptor activity for use in the treatment of glaucoma)
- IT 5-HT receptors  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(type 5-HT<sub>2</sub>, binding to; preparation of novel fused indazoles and indoles with 5-HT<sub>2</sub> receptor activity for use in the treatment of glaucoma)
- IT 477965-61-0P, 2-(2-Aminopropyl)-2,6,7,8-tetrahydrobenzo[cd]indazol-4-ol 477965-62-1P, 2-(2-Dimethylaminoethyl)-2,6,7,8-tetrahydrobenzo[cd]indazol-4-ol 477965-63-2P, 2-(2-Aminopropyl)-5-methyl-2,6,7,8-tetrahydrobenzo[cd]indazol-4-ol 477965-64-3P, 2-(2-Aminopropyl)-5-fluoro-2,6,7,8-tetrahydrobenzo[cd]indazol-4-ol 477965-65-4P, 2-(6-Fluoro-7-methoxy-4,5-dihydro-3H-benzo[cd]indazol-1-yl)-1-methylethylamine 477965-66-5P, Cyclopropanecarboxylic acid 2-(2-aminopropyl)-2,6,7,8-tetrahydrobenzo[cd]indazol-4-yl ester 477965-67-6P, 1-(2-Aminopropyl)-1,3,4,5-tetrahydrobenzo[cd]indol-7-ol 477965-68-7P, 1-(2-Aminopropyl)-5H-pyrano[4,3,2-cd]indazol-7-ol 477965-69-8P, 1-(2-Aminopropyl)-4-methyl-1,3,4,5-tetrahydropyrazolo[4,3,2-de]isoquinolin-7-ol 477965-70-1P, 2-(2-Aminopropyl)-2,6,7,8-tetrahydrobenzo[cd]indazol-4-ol dihydrochloride

477965-71-2P, 2-(2-Aminopropyl)-2,6,7,8-tetrahydrobenzo[cd]indazol-3-ol dihydrochloride

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(drug candidate; preparation of novel fused indazoles and indoles with 5-HT2 receptor activity for use in the treatment of glaucoma)

IT 477965-95-0, 1-(2-Aminopropyl)-1,7,8,9-tetrahydropyrano[2,3-g]indazol-8-ol  
477965-97-2, 1-((S)-2-Aminopropyl)-1,7,8,9-tetrahydropyrano[2,3-g]indazol-8-ol  
477965-99-4, (R)-1-((S)-2-Aminopropyl)-1,7,8,9-tetrahydropyrano[2,3-g]indazol-8-ol  
477966-02-2, (S)-1-((S)-2-Aminopropyl)-1,7,8,9-tetrahydropyrano[2,3-g]indazol-8-ol  
477966-04-4, 1-((S)-2-Aminopropyl)-3-methyl-1,7,8,9-tetrahydropyrano[2,3-g]indazol-8-ol  
477966-06-6, 1-((S)-1-Pyrrolidin-2-ylmethyl)-1,7,8,9-tetrahydropyrano[2,3-g]indazol-8-ol  
477966-08-8, 1-((S)-2-Aminopropyl)-5-fluoro-1,7,8,9-tetrahydropyrano[2,3-g]indazol-8-ol  
477966-10-2, [1-((S)-2-Aminopropyl)-1,7,8,9-tetrahydropyrano[2,3-g]indazol-8-yl]dimethylamine  
477966-11-3, [1-((S)-2-Aminopropyl)-1,7,8,9-tetrahydropyrano[2,3-g]indazol-8-yl]methanol  
477966-13-5, 1-(2-Aminopropyl)-3,7,8,9-tetrahydropyrano[3,2-e]indazol-8-ol  
477966-15-7, 1-(Pyrrolidin-2-ylmethyl)-3,7,8,9-tetrahydropyrano[3,2-e]indazol-8-ol  
477966-17-9, 1-((S)-2-Aminopropyl)-3,7,8,9-tetrahydropyrano[3,2-e]indazol-8-ol  
477966-19-1, 1-((S)-2-Aminopropyl)-3-methyl-3,7,8,9-tetrahydropyrano[3,2-e]indazol-8-ol  
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(drug candidate; preparation of novel fused indazoles and indoles with 5-HT2 receptor activity for use in the treatment of glaucoma)

IT 50536-99-7P, 3-Nitro-5,6,7,8-tetrahydronaphthalen-1-ylamine 78422-66-9P, 2-Nitro-5,6,7,8-tetrahydronaphthalen-1-ylamine 477965-72-3P, 7-Nitro-1,3,4,5-tetrahydrobenzo[cd]indazole 477965-73-4P, 1-(7-Nitro-4,5-dihydro-3H-benzo[cd]indazol-1-yl)propan-2-ol 477965-75-6P, 1-(7-Amino-4,5-dihydro-3H-benzo[cd]indazol-1-yl)propan-2-ol 477965-77-8P, 2-(2-Hydroxypropyl)-2,6,7,8-tetrahydrobenzo[cd]indazol-4-ol 477965-79-0P, 1-(7-Benzyloxy-4,5-dihydro-3H-benzo[cd]indazol-1-yl)propan-2-ol 477965-81-4P, 1-(2-Azidopropyl)-7-benzyloxy-1,3,4,5-tetrahydrobenzo[cd]indazole 477965-83-6P, 8-Nitro-1,3,4,5-tetrahydrobenzo[cd]indazole 477965-85-8P, 1-(8-Nitro-4,5-dihydro-3H-benzo[cd]indazol-1-yl)propan-2-ol 477965-87-0P, 1-(8-Amino-4,5-dihydro-3H-benzo[cd]indazol-1-yl)propan-2-ol 477965-89-2P, 2-(2-Hydroxypropyl)-2,6,7,8-tetrahydrobenzo[cd]indazol-3-ol 477965-91-6P, 1-(8-Benzyloxy-4,5-dihydro-3H-benzo[cd]indazol-1-yl)propan-2-ol 477965-93-8P, 1-(2-Azidopropyl)-8-benzyloxy-1,3,4,5-tetrahydrobenzo[cd]indazole

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(intermediate; preparation of novel fused indazoles and indoles with 5-HT2 receptor activity for use in the treatment of glaucoma)

IT 75-56-9, Propylene oxide, reactions 100-39-0, Benzyl bromide 2217-41-6, 1-Amino-5,6,7,8-tetrahydronaphthalene

RL: RCT (Reactant); RACT (Reactant or reagent)

(starting material; preparation of novel fused indazoles and indoles with 5-HT2 receptor activity for use in the treatment of glaucoma)

RE.CNT 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD  
RE

(1) Flaugh; US 5385928 A 1995 HCAPLUS

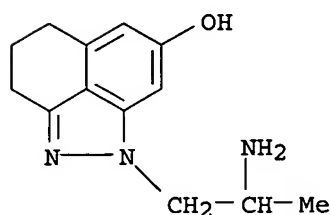
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2-(2-aminopropyl)-2,6,7,8-tetrahydrobenzo[cd]indazol-4-yl ester  
 477965-67-6P, 1-(2-Aminopropyl)-1,3,4,5-tetrahydrobenzo[cd]indol-7-  
 ol 477965-68-7P, 1-(2-Aminopropyl)-5H-pyrano[4,3,2-cd]indazol-7-  
 ol 477965-69-8P, 1-(2-Aminopropyl)-4-methyl-1,3,4,5-  
 tetrahydropyrazolo[4,3,2-de]isoquinolin-7-ol 477965-70-1P,  
 2-(2-Aminopropyl)-2,6,7,8-tetrahydrobenzo[cd]indazol-4-ol dihydrochloride  
 RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU  
 (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES  
 (Uses)

(drug candidate; preparation of novel fused indazoles and indoles with 5-HT2  
 receptor activity for use in the treatment of glaucoma)

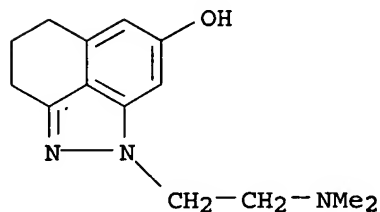
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CN Benz[cd]indazol-4-ol, 2-(2-aminopropyl)-2,6,7,8-tetrahydro- (9CI) (CA  
 INDEX NAME)



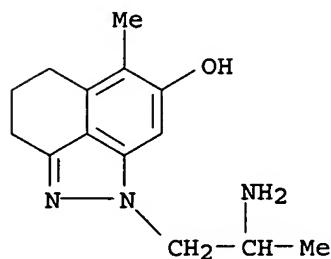
RN 477965-62-1 HCAPLUS

CN Benz[cd]indazol-4-ol, 2-[2-(dimethylamino)ethyl]-2,6,7,8-tetrahydro- (9CI)  
 (CA INDEX NAME)



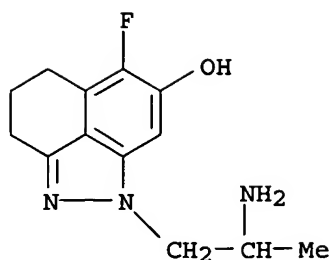
RN 477965-63-2 HCAPLUS

CN Benz[cd]indazol-4-ol, 2-(2-aminopropyl)-2,6,7,8-tetrahydro-5-methyl- (9CI)  
 (CA INDEX NAME)



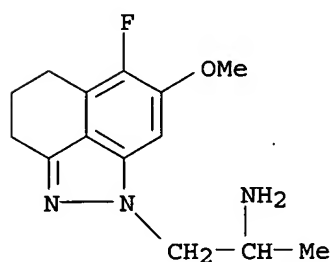
RN 477965-64-3 HCAPLUS

CN Benz[cd]indazol-4-ol, 2-(2-aminopropyl)-5-fluoro-2,6,7,8-tetrahydro- (9CI)  
 (CA INDEX NAME)



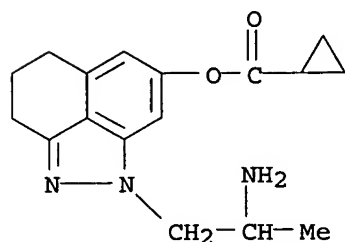
RN 477965-65-4 HCAPLUS

CN Benz[cd]indazole-1(3H)-ethanamine, 6-fluoro-4,5-dihydro-7-methoxy-α-methyl- (9CI) (CA INDEX NAME)



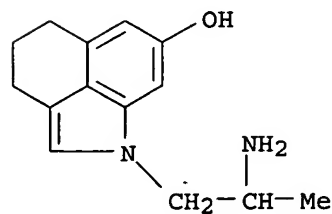
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CN Cyclopropanecarboxylic acid, 2-(2-aminopropyl)-2,6,7,8-tetrahydrobenz[cd]indazol-4-yl ester (9CI) (CA INDEX NAME)



RN 477965-67-6 HCAPLUS

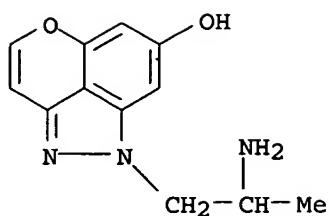
CN Benz[cd]indol-7-ol, 1-(2-aminopropyl)-1,3,4,5-tetrahydro- (9CI) (CA INDEX NAME)



RN 477965-68-7 HCAPLUS

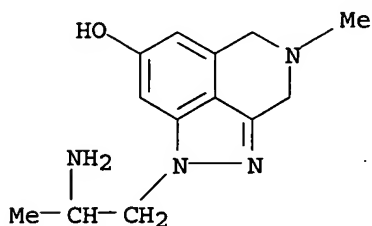
CN 1H-Pyrano[4,3,2-cd]indazol-7-ol, 1-(2-aminopropyl)- (9CI) (CA INDEX NAME)





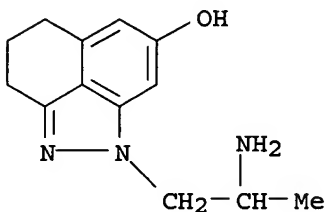
RN 477965-69-8 HCAPLUS

CN Pyrazolo[3,4,5-de]isoquinolin-7-ol, 1-(2-aminopropyl)-1,3,4,5-tetrahydro-4-methyl- (9CI) (CA INDEX NAME)



RN 477965-70-1 HCAPLUS

CN Benz[cd]indazol-4-ol, 2-(2-aminopropyl)-2,6,7,8-tetrahydro-, dihydrochloride (9CI) (CA INDEX NAME)



● 2 HCl

=> => fil reg

FILE 'REGISTRY' ENTERED AT 06:35:28 ON 26 OCT 2004

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STRUCTURE FILE UPDATES: 24 OCT 2004 HIGHEST RN 768347-62-2

DICTIONARY FILE UPDATES: 24 OCT 2004 HIGHEST RN 768347-62-2

TSCA INFORMATION NOW CURRENT THROUGH MAY 21, 2004

Please note that search-term pricing does apply when conducting SmartSELECT searches.

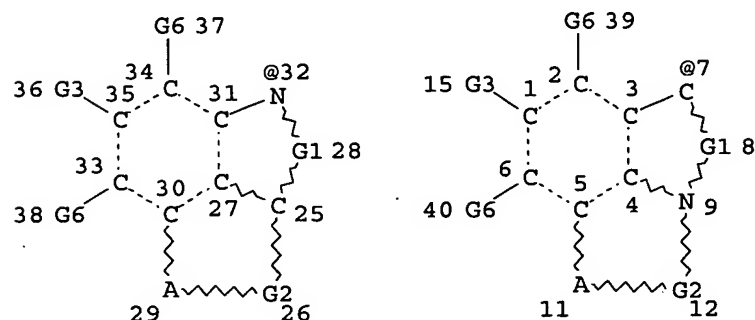
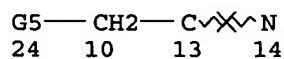
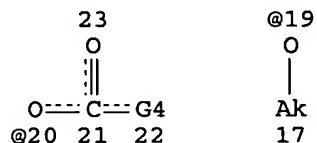
Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at:  
<http://www.cas.org/ONLINE/DBSS/registryss.html>

=> d sta que l2

L1

STR



VAR G1=C/N  
 REP G2=(1-3) A  
 VAR G3=OH/X/AK/19/20  
 VAR G4=C/N/O/CY  
 VAR G5=7/32  
 VAR G6=H/X/AK  
 NODE ATTRIBUTES:  
 NSPEC IS RC AT 13  
 NSPEC IS RC AT 14  
 DEFAULT MLEVEL IS ATOM  
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:  
 RSPEC 9 25  
 NUMBER OF NODES IS 38

STEREO ATTRIBUTES: NONE  
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100.0% PROCESSED 516203 ITERATIONS  
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75 ANSWERS

=> d his

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 DEL HIS

FILE 'REGISTRY' ENTERED AT 06:31:42 ON 26 OCT 2004

ACT SHIAO721/A

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L1 STR  
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L4 65 S L2 NOT L3

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L5 0 S L4

FILE 'HCAPLUS' ENTERED AT 06:32:11 ON 26 OCT 2004

L6 11 S L4  
L7 1 S L6 AND (MAY J? OR DANTANARAYANA ?)/AU  
L8 1 S L6 AND ALCO?/PA,CS  
L9 1 S L7,L8  
L10 10 S L6 NOT L9  
L11 9 S L10 AND (PD<=20010601 OR PRD<=20010601 OR AD<=20010601)  
L12 1 S L10 NOT L11  
L13 10 S L10-L12

FILE 'USPATFULL, USPAT2' ENTERED AT 06:34:33 ON 26 OCT 2004

L14 11 S L4  
L15 1 S L14 AND (MAY J? OR DANTANARAYANA ?)/AU  
L16 10 S L14 NOT L15

FILE 'REGISTRY' ENTERED AT 06:35:28 ON 26 OCT 2004

=&gt; fil hcaplus

FILE 'HCAPLUS' ENTERED AT 06:35:37 ON 26 OCT 2004

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FILE COVERS 1907 - 26 Oct 2004 VOL 141 ISS 18

FILE LAST UPDATED: 25 Oct 2004 (20041025/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

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L9 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2004 ACS on STN  
AN 2002:946270 HCAPLUS  
DN 138:24711  
ED Entered STN: 13 Dec 2002  
TI Novel fused indazoles and indoles with 5-HT2 receptor activity, and their use for lowering of intraocular pressure in the treatment of glaucoma  
IN May, Jesse A.; Dantanarayana, Anura P.  
PA Alcon, Inc., Switz.  
SO PCT Int. Appl., 35 pp.

CODEN: PIXXD2  
 DT Patent  
 LA English  
 IC ICM C07D231-54  
 ICS A61K031-416  
 CC 28-8 (Heterocyclic Compounds (More Than One Hetero Atom))  
 Section cross-reference(s): 1, 27

FAN.CNT 1

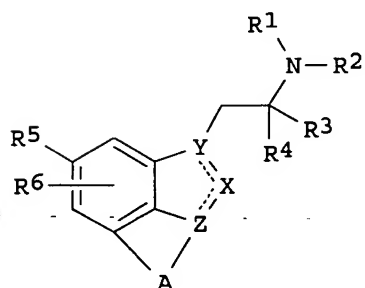
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	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	EP 1392658	A1	20040303	EP 2002-734608	20020530
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	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
	US 2004106597	A1	20040603	US 2003-721204	20031125
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## CLASS

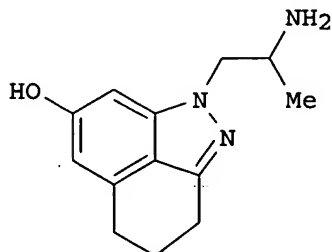
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AB Novel fused indazoles and indoles are disclosed. Also disclosed are methods for the lowering and controlling of normal or elevated intraocular pressure, as well as a method for the treatment of glaucoma, using compns. containing one or more of the invention compds. In particular, compds. I are claimed [wherein R1 and R2 are independently chosen from H or alkyl; R3 and R4 are independently chosen from H or alkyl, or R3, R4, and the C atom to which they are attached form cycloalkyl; or R2 and R3 together are (CH2)<sub>m</sub> to form a saturated heterocycle; R5 is chosen from OH, alkoxy, alkyl, halogen, or OC(O)W; R6 is chosen from H, halogen, or (un)substituted alkyl; R7 and R8 are H or alkyl; W is (un)substituted alkyl, NR7R8, NR7CH2(CH2)<sub>n</sub>NR7R8, O-alkyl, or (un)substituted alkenyl; m is 3 or 4; n is 2 or 3; A is a 5- to 7-membered ring optionally containing one heteroatom

chosen from NR7, O, or S; X is either N or C; Y and Z are either N or C, wherein Y and Z are different; and the dashed bonds denote a suitably appointed single and double bond; or pharmaceutically acceptable salts or solvates thereof]. Nine specific compds. I are claimed per se, and these compds. plus 13 addnl. unprep'd. compds. are claimed in corresponding methods of lowering intraocular pressure or treating glaucoma. For instance, title compound II.2HCl was prepared in 8 steps from 1-amino-5,6,7,8-tetrahydronaphthalene (III). The sequence involved: (1) nitration of III in the 2- and 3-positions; (2) diazotization with cyclization to give a benzopyrazole ring; (3) N-alkylation with propylene oxide; (4) hydrogenation of the nitro group to amino; (5) diazotization and hydroxylation of the formed amino group; (6) benzylation of the formed phenolic hydroxy group; (7) mesylation of the alkanolic hydroxy group and conversion to the azide; and (8) hydrogenation of the azide and acidification. II.2HCl bound to rat cortical 5-HT<sub>2</sub> receptors in vitro with an IC<sub>50</sub> of 0.714 nM, vs. 0.941 for 5-HT itself. This compound also showed agonist activity at rat vascular 5-HT<sub>2</sub> receptors in a phosphoinositide turnover assay, and reduced intraocular pressure in conscious cynomolgus monkeys by about 20% for at least 6 h at a dose of 300 µg (topical).

- ST indazole indole prepn 5HT<sub>2</sub> receptor agonist antagonist treatment glaucoma; serotoninergic agonist antagonist indazole indole prepn intraocular antihypertensive
- IT 5-HT agonists  
5-HT antagonists  
(5-HT<sub>2A</sub>; preparation of novel fused indazoles and indoles with 5-HT<sub>2</sub> receptor activity for use in the treatment of glaucoma)
- IT 5-HT receptors  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(binding to; preparation of novel fused indazoles and indoles with 5-HT<sub>2</sub> receptor activity for use in the treatment of glaucoma)
- IT 5-HT agonists  
5-HT antagonists  
Antiglaucoma agents  
Antihypertensives  
(preparation of novel fused indazoles and indoles with 5-HT<sub>2</sub> receptor activity for use in the treatment of glaucoma)
- IT Hypertension  
(treatment of intraocular; preparation of novel fused indazoles and indoles with 5-HT<sub>2</sub> receptor activity for use in the treatment of glaucoma)
- IT Glaucoma (disease)  
(treatment of; preparation of novel fused indazoles and indoles with 5-HT<sub>2</sub> receptor activity for use in the treatment of glaucoma)
- IT 5-HT receptors  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(type 5-HT<sub>2</sub>, binding to; preparation of novel fused indazoles and indoles with 5-HT<sub>2</sub> receptor activity for use in the treatment of glaucoma)
- IT 477965-61-0P, 2-(2-Aminopropyl)-2,6,7,8-tetrahydrobenzo[cd]indazol-4-ol  
477965-62-1P, 2-(2-Dimethylaminoethyl)-2,6,7,8-tetrahydrobenzo[cd]indazol-4-ol  
477965-63-2P, 2-(2-Aminopropyl)-5-methyl-2,6,7,8-tetrahydrobenzo[cd]indazol-4-ol  
477965-64-3P, 2-(2-Aminopropyl)-5-fluoro-2,6,7,8-tetrahydrobenzo[cd]indazol-4-ol  
477965-65-4P, 2-(6-Fluoro-7-methoxy-4,5-dihydro-3H-benzo[cd]indazol-1-yl)-1-methylethylamine  
477965-66-5P, Cyclopropanecarboxylic acid  
2-(2-aminopropyl)-2,6,7,8-tetrahydrobenzo[cd]indazol-4-yl ester  
477965-67-6P, 1-(2-Aminopropyl)-1,3,4,5-tetrahydrobenzo[cd]indol-7-ol  
477965-68-7P, 1-(2-Aminopropyl)-5H-pyrano[4,3,2-cd]indazol-7-ol  
477965-69-8P, 1-(2-Aminopropyl)-4-methyl-1,3,4,5-tetrahydropyrazolo[4,3,2-de]isoquinolin-7-ol  
477965-70-1P, 2-(2-Aminopropyl)-2,6,7,8-tetrahydrobenzo[cd]indazol-4-ol dihydrochloride  
477965-71-2P, 2-(2-Aminopropyl)-2,6,7,8-tetrahydrobenzo[cd]indazol-3-ol dihydrochloride  
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES

(Uses)

(drug candidate; preparation of novel fused indazoles and indoles with 5-HT2 receptor activity for use in the treatment of glaucoma)

IT 477965-95-0, 1-(2-Aminopropyl)-1,7,8,9-tetrahydropyrano[2,3-g]indazol-8-ol  
477965-97-2, 1-((S)-2-Aminopropyl)-1,7,8,9-tetrahydropyrano[2,3-g]indazol-8-ol  
477965-99-4, (R)-1-((S)-2-Aminopropyl)-1,7,8,9-tetrahydropyrano[2,3-g]indazol-8-ol  
477966-02-2, (S)-1-((S)-2-Aminopropyl)-1,7,8,9-tetrahydropyrano[2,3-g]indazol-8-ol  
477966-04-4, 1-((S)-2-Aminopropyl)-3-methyl-1,7,8,9-tetrahydropyrano[2,3-g]indazol-8-ol  
477966-06-6, 1-((S)-1-Pyrrolidin-2-ylmethyl)-1,7,8,9-tetrahydropyrano[2,3-g]indazol-8-ol  
477966-08-8, 1-((S)-2-Aminopropyl)-5-fluoro-1,7,8,9-tetrahydropyrano[2,3-g]indazol-8-ol  
477966-10-2, [1-((S)-2-Aminopropyl)-1,7,8,9-tetrahydropyrano[2,3-g]indazol-8-yl]dimethylamine  
477966-11-3, [1-((S)-2-Aminopropyl)-1,7,8,9-tetrahydropyrano[2,3-g]indazol-8-yl]methanol  
477966-13-5, 1-(2-Aminopropyl)-3,7,8,9-tetrahydropyrano[3,2-e]indazol-8-ol  
477966-15-7, 1-(Pyrrolidin-2-ylmethyl)-3,7,8,9-tetrahydropyrano[3,2-e]indazol-8-ol  
477966-17-9, 1-((S)-2-Aminopropyl)-3,7,8,9-tetrahydropyrano[3,2-e]indazol-8-ol  
477966-19-1, 1-((S)-2-Aminopropyl)-3-methyl-3,7,8,9-tetrahydropyrano[3,2-e]indazol-8-ol  
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(drug candidate; preparation of novel fused indazoles and indoles with 5-HT2 receptor activity for use in the treatment of glaucoma)

IT 50536-99-7P, 3-Nitro-5,6,7,8-tetrahydronaphthalen-1-ylamine 78422-66-9P,  
2-Nitro-5,6,7,8-tetrahydronaphthalen-1-ylamine 477965-72-3P,  
7-Nitro-1,3,4,5-tetrahydrobenzo[cd]indazole 477965-73-4P,  
1-(7-Nitro-4,5-dihydro-3H-benzo[cd]indazol-1-yl)propan-2-ol  
477965-75-6P, 1-(7-Amino-4,5-dihydro-3H-benzo[cd]indazol-1-yl)propan-2-ol  
477965-77-8P, 2-(2-Hydroxypropyl)-2,6,7,8-tetrahydrobenzo[cd]indazol-4-ol  
477965-79-0P, 1-(7-Benzyloxy-4,5-dihydro-3H-benzo[cd]indazol-1-yl)propan-2-ol  
477965-81-4P, 1-(2-Azidopropyl)-7-benzyloxy-1,3,4,5-tetrahydrobenzo[cd]indazole  
477965-83-6P, 8-Nitro-1,3,4,5-tetrahydrobenzo[cd]indazole  
477965-85-8P, 1-(8-Nitro-4,5-dihydro-3H-benzo[cd]indazol-1-yl)propan-2-ol  
477965-87-0P, 1-(8-Amino-4,5-dihydro-3H-benzo[cd]indazol-1-yl)propan-2-ol  
477965-89-2P, 2-(2-Hydroxypropyl)-2,6,7,8-tetrahydrobenzo[cd]indazol-3-ol  
477965-91-6P, 1-(8-Benzyloxy-4,5-dihydro-3H-benzo[cd]indazol-1-yl)propan-2-ol  
477965-93-8P, 1-(2-Azidopropyl)-8-benzyloxy-1,3,4,5-tetrahydrobenzo[cd]indazole  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(intermediate; preparation of novel fused indazoles and indoles with 5-HT2 receptor activity for use in the treatment of glaucoma)

IT 75-56-9, Propylene oxide, reactions 100-39-0, Benzyl bromide  
2217-41-6, 1-Amino-5,6,7,8-tetrahydronaphthalene  
RL: RCT (Reactant); RACT (Reactant or reagent)

(starting material; preparation of novel fused indazoles and indoles with 5-HT2 receptor activity for use in the treatment of glaucoma)

RE.CNT 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

(1) Flaugh; US 5385928 A 1995 HCAPLUS

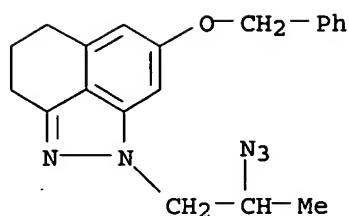
IT 477965-81-4P, 1-(2-Azidopropyl)-7-benzyloxy-1,3,4,5-tetrahydrobenzo[cd]indazole

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(intermediate; preparation of novel fused indazoles and indoles with 5-HT2 receptor activity for use in the treatment of glaucoma)

RN 477965-81-4 HCAPLUS

CN Benz[cd]indazole, 1-(2-azidopropyl)-1,3,4,5-tetrahydro-7-(phenylmethoxy)-(9CI) (CA INDEX NAME)



✓ => d l13 all hitstr tot

L13 ANSWER 1 OF 10 HCAPLUS COPYRIGHT 2004 ACS on STN  
 AN 2004:203665 HCAPLUS  
 DN 140:229446  
 ED Entered STN: 14 Mar 2004  
 TI Method using heterocyclic carboxamide compounds for preventing or treating atherosclerosis or restenosis  
 IN Wathen, Michael W.; Wathen, Lynne K.  
 PA Pharmacia & Upjohn Company, USA  
 SO PCT Int. Appl., 110 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English  
 IC ICM A61K031-435  
 ICS A61K031-4745; A61P009-10  
 CC 1-8 (Pharmacology)  
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004019939	A1	20040311	WO 2003-US26973	20030828
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2004102473	A1	20040527	US 2003-651216	20030828
PRAI US 2002-407090P	P	20020830		

## CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 2004019939	ICM	A61K031-435
	ICS	A61K031-4745; A61P009-10

OS MARPAT 140:229446

AB The invention provides a method of treating atherosclerosis or restenosis in a mammal which comprises administering an effective amount of a thieno[2,3-b]pyridine carboxamide derivative or a pyrrolo[3,2,1-ij]quinoline carboxamide derivative

ST thienopyridine carboxamide deriv atherosclerosis restenosis treatment; pyrroloquinoline carboxamide deriv atherosclerosis restenosis treatment

IT Antiarteriosclerotics

(antiatherosclerotics; heterocyclic carboxamide compds. for preventing or treating atherosclerosis or restenosis)

IT Atherosclerosis

## Cardiovascular agents

## Human

(heterocyclic carboxamide compds. for preventing or treating atherosclerosis or restenosis)

- IT Drug delivery systems  
(oral; heterocyclic carboxamide compds. for preventing or treating atherosclerosis or restenosis)
- IT Drug delivery systems  
(parenterals; heterocyclic carboxamide compds. for preventing or treating atherosclerosis or restenosis)
- IT Drug delivery systems  
(prodrugs; heterocyclic carboxamide compds. for preventing or treating atherosclerosis or restenosis)
- IT Artery, disease  
(restenosis; heterocyclic carboxamide compds. for preventing or treating atherosclerosis or restenosis)
- IT Drug delivery systems  
(topical; heterocyclic carboxamide compds. for preventing or treating atherosclerosis or restenosis)
- IT Drugs  
(veterinary; heterocyclic carboxamide compds. for preventing or treating atherosclerosis or restenosis)
- IT 292143-49-8 292143-52-3 292143-55-6 292143-58-9 292143-61-4  
292143-64-7 292143-65-8 292143-66-9 292143-67-0 292143-68-1  
292143-70-5 292143-71-6 292143-72-7 292143-74-9 292143-76-1  
292143-78-3 292143-79-4 292143-83-0 292143-85-2 292143-86-3  
292143-90-9 292143-92-1 292143-94-3 292143-96-5 292143-98-7  
292144-00-4 292144-02-6 292144-04-8 292144-06-0 292144-07-1  
292144-08-2 292144-09-3 292144-10-6 292144-12-8 292144-13-9  
292144-14-0 292144-15-1 292144-16-2 292144-17-3 292144-18-4  
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388122-03-0 388122-04-1 388122-05-2 388122-06-3 388122-07-4  
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388122-21-2 388122-22-3 388122-23-4 388122-24-5 388122-25-6  
388122-26-7 388122-27-8 388122-28-9 388122-29-0 388122-30-3  
388122-31-4 388122-32-5 388122-33-6  
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL  
(Biological study); USES (Uses)  
(heterocyclic carboxamide compds. for preventing or treating atherosclerosis or restenosis)

RE.CNT 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD

## RE

- (1) Ke, C; US 2002055636 A1 2002 HCAPLUS
- (2) Lemstrom, K; CIRCULATION 1994, V90(4), P1969 HCAPLUS
- (3) O'Connor, S; EMERGING INFECTIOUS DISEASES 2001, V7(5), P780 MEDLINE
- (4) Romines, K; WO 03059912 A 2003 HCAPLUS
- (5) Scott, A; US 6239142 B1 2001 HCAPLUS
- (6) Shnute, M; WO 03059911 A 2003 HCAPLUS
- (7) Up John Co; WO 03020729 A 2003 HCAPLUS
- (8) Zhou; NEW ENGLAND JOURNAL OF MEDICINE 1996, 335, P624

IT 388122-12-1 388122-13-2 388122-14-3

388122-15-4 388122-16-5

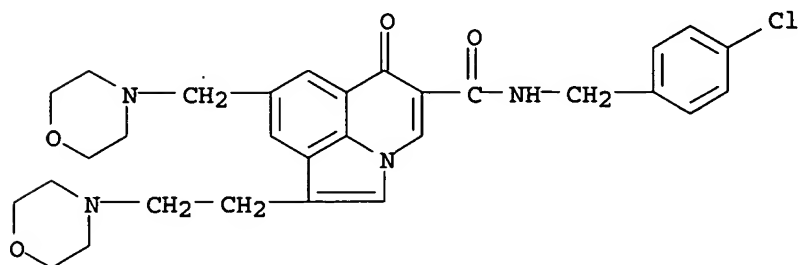
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL  
(Biological study); USES (Uses)



(heterocyclic carboxamide compds. for preventing or treating atherosclerosis or restenosis)

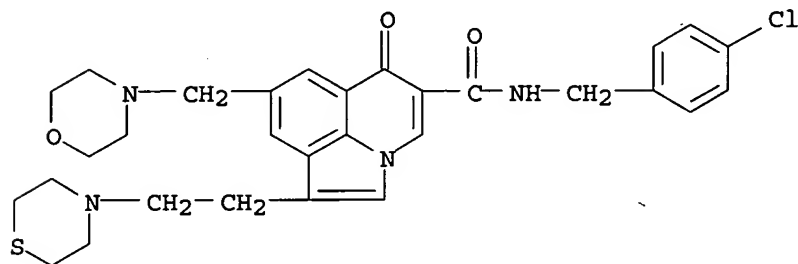
RN 388122-12-1 HCAPLUS

CN 6H-Pyrrolo[3,2,1-ij]quinoline-5-carboxamide, N-[(4-chlorophenyl)methyl]-1-[2-(4-morpholinyl)ethyl]-8-(4-morpholinylmethyl)-6-oxo- (9CI) (CA INDEX NAME)



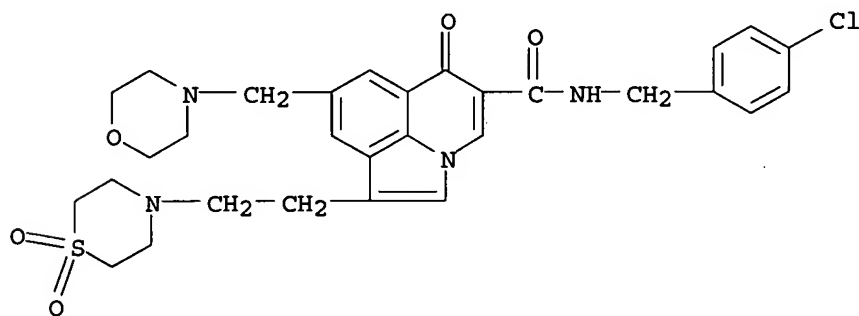
RN 388122-13-2 HCAPLUS

CN 6H-Pyrrolo[3,2,1-ij]quinoline-5-carboxamide, N-[(4-chlorophenyl)methyl]-8-(4-morpholinylmethyl)-6-oxo-1-[2-(4-thiomorpholinyl)ethyl]- (9CI) (CA INDEX NAME)



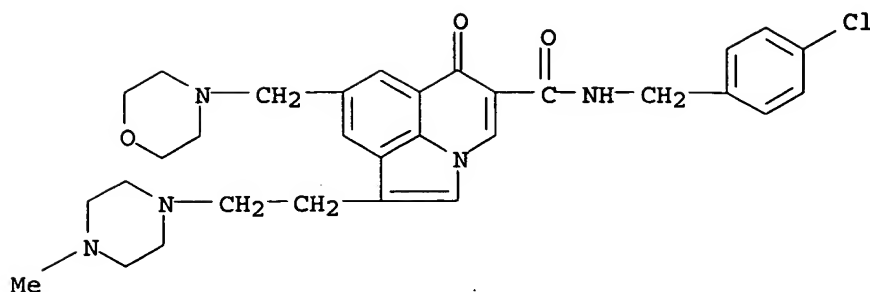
RN 388122-14-3 HCAPLUS

CN 6H-Pyrrolo[3,2,1-ij]quinoline-5-carboxamide, N-[(4-chlorophenyl)methyl]-1-[2-(1,1-dioxido-4-thiomorpholinyl)ethyl]-8-(4-morpholinylmethyl)-6-oxo- (9CI) (CA INDEX NAME)

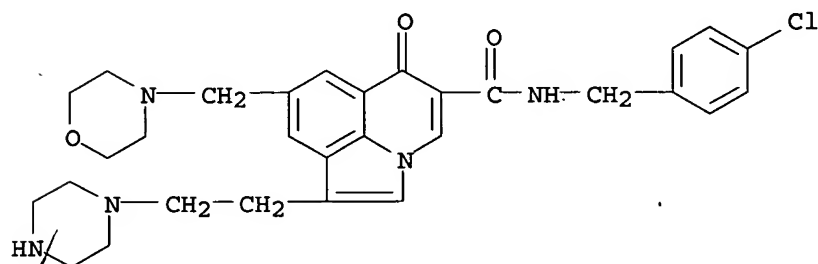


RN 388122-15-4 HCAPLUS

CN 6H-Pyrrolo[3,2,1-ij]quinoline-5-carboxamide, N-[(4-chlorophenyl)methyl]-1-[2-(4-methyl-1-piperazinyl)ethyl]-8-(4-morpholinylmethyl)-6-oxo- (9CI) (CA INDEX NAME)



RN 388122-16-5 HCAPLUS  
 CN 6H-Pyrrolo[3,2,1-ij]quinoline-5-carboxamide, N-[(4-chlorophenyl)methyl]-8-(4-morpholinylmethyl)-6-oxo-1-[2-(1-piperazinyl)ethyl]- (9CI) (CA INDEX NAME)



✓ L13 ANSWER 2 OF 10 HCAPLUS COPYRIGHT 2004 ACS on STN  
 AN 2002:845271 HCAPLUS  
 DN 137:346175  
 ED Entered STN: 07 Nov 2002  
 TI Use of lipoxygenase inhibitors for the treatment of acne  
 IN Zouboulis, Christos C.  
 PA Germany  
 SO Ger. Offen., 6 pp.  
 CODEN: GWXXBX  
 DT Patent  
 LA German  
 IC ICM A61K031-381  
 CC 1-7 (Pharmacology)  
 Section cross-reference(s): 63

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 10121252	A1	20021107	DE 2001-10121252	20010430 <--
	WO 2002089791	A2	20021114	WO 2002-EP4715	20020429 <--
	WO 2002089791	A3	20031211		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1385505	A2	20040204	EP 2002-730223	20020429 <--	
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,				

IE, SI, LT, LV, FI, RO, MK, CY, AL, TR  
 JP 2004528360 T2 20040916 JP 2002-586926 20020429 <--  
 PRAI DE 2001-10121252 A 20010430 <--  
 WO 2002-EP4715 W 20020429

## CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
DE 10121252	ICM	A61K031-381
DE 10121252	ECLA	A61K008/49L; A61K045/06; A61Q019/02; A61K031/381; A61K031/381 <--
JP 2004528360	FTERM	4C084/AA27; 4C084/MA52; 4C084/MA63; 4C084/ZA891; 4C084/ZA892; 4C084/ZB111; 4C084/ZB112; 4C084/ZC201; 4C084/ZC231; 4C086/AA01; 4C086/AA02; 4C086/BB03; 4C086/DA08; 4C086/GA04; 4C086/MA01; 4C086/MA04; 4C086/MA52; 4C086/MA63; 4C086/NA14; 4C086/ZA89; 4C086/ZB11; 4C086/ZC23; 4C091/AA06; 4C091/BB11; 4C091/CC01; 4C091/DD01; 4C091/EE04; 4C091/FF02; 4C091/GG03; 4C091/GG05; 4C091/HH01; 4C091/JJ03; 4C091/KK01; 4C091/LL03; 4C091/LL06; 4C091/MM01; 4C091/NN01; 4C091/PA02; 4C091/PB01; 4C091/QQ02; 4C091/QQ05; 4C091/QQ15; 4C206/AA01; 4C206/AA02; 4C206/CA09; 4C206/CB03; 4C206/DA12; 4C206/KA01; 4C206/MA01; 4C206/MA04; 4C206/MA21; 4C206/MA72; 4C206/MA83; 4C206/ZA89; 4C206/ZB11; 4C206/ZC23 <--
AB		The invention discloses the use of lipoxxygenase inhibitors for the treatment of acne, in particular inflammatory acne. The lipoxxygenase inhibitor can be used alone or into combination with other lipoxxygenase inhibitors or with further anti-acne agents in a suitable pharmaceutical composition, in particular via oral and/or local topical application.
ST		lipoxxygenase inhibitor acne pharmaceutical; inflammatory acne pharmaceutical lipoxxygenase inhibitor
IT		Hydrazones RL: RCT (Reactant); RACT (Reactant or reagent) (aromatic; lipoxxygenase inhibitors for treatment of acne)
IT		Chamomile (extract; lipoxxygenase inhibitors for treatment of acne)
IT		Inflammation (inflammatory acne; lipoxxygenase inhibitors for treatment of acne)
IT		Acne Anti-inflammatory agents Drug delivery systems Human (lipoxxygenase inhibitors for treatment of acne)
IT		Retinoids Terpenes, biological studies RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (lipoxxygenase inhibitors for treatment of acne)
IT		Hydrazones RL: RCT (Reactant); RACT (Reactant or reagent) (lipoxxygenase inhibitors for treatment of acne)
IT		Drug delivery systems (oral; lipoxxygenase inhibitors for treatment of acne)
IT		Fatty acids, biological studies RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (polyunsatd.; lipoxxygenase inhibitors for treatment of acne)
IT		Drug delivery systems (topical; lipoxxygenase inhibitors for treatment of acne)
IT		125721-82-6, BIL 226XX RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (BIL 226XX; lipoxxygenase inhibitors for treatment of acne)

IT 148915-76-8, BU 4601A  
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL  
(Biological study); USES (Uses)  
(BU 4601A; lipoxygenase inhibitors for treatment of acne)

IT 134470-36-3, BW-B 218C  
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL  
(Biological study); USES (Uses)  
(BW-B 218C; lipoxygenase inhibitors for treatment of acne)

IT 134470-38-5, BW-B 70C  
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL  
(Biological study); USES (Uses)  
(BW-B 70C; lipoxygenase inhibitors for treatment of acne)

IT 131817-86-2, CGS 22745  
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL  
(Biological study); USES (Uses)  
(CGS 22745; lipoxygenase inhibitors for treatment of acne)

IT 187112-17-0, CHF 1909  
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL  
(Biological study); USES (Uses)  
(CHF 1909; lipoxygenase inhibitors for treatment of acne)

IT 127378-46-5, CI 987  
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL  
(Biological study); USES (Uses)  
(CI 987; lipoxygenase inhibitors for treatment of acne)

IT 171095-65-1, CMI 568  
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL  
(Biological study); USES (Uses)  
(CMI 568; lipoxygenase inhibitors for treatment of acne)

IT 137945-48-3, CT 3  
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL  
(Biological study); USES (Uses)  
(CT 3; lipoxygenase inhibitors for treatment of acne)

IT 146935-39-9, Epocarbazolin A  
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL  
(Biological study); USES (Uses)  
(Epocarbazolin A; lipoxygenase inhibitors for treatment of acne)

IT 147317-96-2, Nitrosoxacin A  
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL  
(Biological study); USES (Uses)  
(Nitrosoxacin A; lipoxygenase inhibitors for treatment of acne)

IT 87660-25-1, ONO 5349  
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL  
(Biological study); USES (Uses)  
(ONO 5349; lipoxygenase inhibitors for treatment of acne)

IT 115255-10-2, ONO-LP 219  
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL  
(Biological study); USES (Uses)  
(ONO-LP 219; lipoxygenase inhibitors for treatment of acne)

IT 115255-23-7, ONO-LP 269  
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL  
(Biological study); USES (Uses)  
(ONO-LP 269; lipoxygenase inhibitors for treatment of acne)

IT 187112-44-3, PD 145246  
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL  
(Biological study); USES (Uses)  
(PD 145246; lipoxygenase inhibitors for treatment of acne)

IT 187112-47-6, R 840  
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL  
(Biological study); USES (Uses)  
(R 840; lipoxygenase inhibitors for treatment of acne)

IT 92532-05-3, Rev 5367  
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL  
(Biological study); USES (Uses)

(Rev 5367; lipoxygenase inhibitors for treatment of acne)

IT 101619-08-3, TMK 781  
 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (TMK 781; lipoxygenase inhibitors for treatment of acne)

IT 101618-31-9, TMK 789  
 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (TMK 789; lipoxygenase inhibitors for treatment of acne)

IT 96920-48-8, TMK 992  
 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (TMK 992; lipoxygenase inhibitors for treatment of acne)

IT 135872-69-4, WAY 120739  
 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (WAY 120739; lipoxygenase inhibitors for treatment of acne)

IT 9029-60-1, Lipoxygenase 80619-02-9, 5-Lipoxygenase  
 RL: BSU (Biological study, unclassified); BIOL (Biological study) (inhibitors; lipoxygenase inhibitors for treatment of acne)

IT 341-88-8, KF-8940 471-66-9D, derivs. 529-05-5, Chamazulen 631-69-6  
 1783-84-2 2396-01-2D, Phenyl, 4-acylamino derivs. 4737-27-3, Isoflavanone 27686-84-6, Masoprocol 34334-69-5, Cirsiliol 36441-32-4, DuP-654 46721-85-1, CBS-1114 54845-95-3, 15-HETE 60284-71-1, AHR 5333 66000-40-6, BW755C 67416-61-9 75139-38-7, Carbazomycin B 75706-12-6, Leflunomide 79916-77-1, Forsythiaside 80809-81-0, Docebenone 91431-42-4, Lonapalene 93211-49-5, L-651392 96314-49-7, TEI-8005 96928-53-9, TMK-919 99107-52-5, Bunaprolast 99134-29-9, L651896 99318-09-9, QA-208-199 100035-75-4, Evandamine 101335-99-3, Eprovafen 101619-11-8, TMK-777 101910-24-1, PF-5901 102612-16-8, L-656224 103141-09-9, FPL 62064 103475-41-8, Tepoxalin 104007-80-9, TZI-41127 104153-37-9, Rilopirox 105357-17-3, SC-41661A 107008-29-7, L-652343 107746-52-1, E 5110 107753-78-6, ICI 204219 107889-32-7, LY 178002 110033-17-5, WY 47288 110406-33-2 110545-79-4, SCH 40120 111406-87-2, Zileuton 111525-11-2, A 63162 111908-94-2, SK&F-104351 111908-95-3, SK&F-104493 111974-60-8, WY-48252 112344-52-2, Flobufen 114832-13-2, CGS-8515 114917-95-2, BMY-30094 115104-28-4, MK571 115816-05-2, BI-L-93BS 117574-40-0, CV-6504 118414-82-7, L 663536 118420-47-6, AL-3264 119256-94-9, FR 110302 120072-59-5, SC-41930 120164-49-0, E 6080 120210-48-2, Tenidap 120273-58-7, ICI 207968 120443-16-5, MK679 120602-97-3, RG-6866 121412-39-3, CGS-21595 121502-05-4, PD-127443 122454-69-7, SK&F-105809 122610-85-9, A 65260 123016-21-7, WY-50295 123606-23-5, A 69412 125579-01-3 125722-16-9, Enofelast 127245-22-1, BF-389 127481-38-3, L-674636 128253-31-6, Bay-x-1005 129424-08-4, ICI 211965 130116-16-4, CI-986 130838-15-2, Y-19432 132392-65-5, LY269415 132734-43-1, LY233569 132956-22-0, Enazadrem phosphate 133174-26-2, L-670630 133430-69-0, ETH-615 134822-78-9, CGS-23885 134823-10-2, CGS 24891 135133-84-5, SC-45662 135872-94-5, WAY 121520 138331-04-1, R-68151 138828-39-4, SC-50605 139149-55-6, SB-202235 139340-56-0, CI 1004 140841-32-3, ZD-2138 141059-52-1, SC-51146 141579-54-6, A 76745 141579-67-1, A 78773 141579-87-5, A 79175 143964-80-1, F-1322 145096-30-6, E 3040 147030-01-1, MK-591 147432-77-7, Ontazolast 147497-10-7, CGS 26529 147936-06-9, L-699333 148490-22-6 149539-02-6, BI-L-357 150693-65-5, Lagunamycin 152784-11-7, WILD20 153633-01-3, SC-53228 153950-29-9, A 121798 154214-70-7, R-85355 154355-76-7, ABT 761 155944-23-3, ZM 230487 156897-06-2, ML3000 157630-13-2, MER W8020 158930-07-5, L 739010 159776-68-8, Linetastine 161172-51-6, LY 293111 161435-44-5, CGS 25997 162738-34-3 187112-03-4, A 72694 187112-04-5, A 80263 187112-09-0, Bay-q-1531 187112-10-3, BF-397 187112-11-4, BW 4C 187112-12-5, BW-70C 187112-22-7, EF 40 (enzyme inhibitor) 187112-23-8, EN-105 187112-26-1, FPL-64170 187112-28-3, GR-80907 187112-29-4, HP 977 187112-30-7, HX

0386 187112-32-9, L-691816 187112-33-0, Linazolast 187112-35-2,  
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 8977 187112-43-2, PD-136005 187112-50-1, RU-46057 187112-51-2, RU  
 54808 187112-52-3, SL 81-0433 187112-54-5, SS 81OH 187112-56-7,  
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 ZM 216800 193739-23-0, CMI-392 195215-27-1, Carbazoycin C  
 195215-52-2, RG 5901A 474655-20-4, VLM 295 474655-21-5, SC 37920  
 474655-23-7, SDZ 210610

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL  
 (Biological study); USES (Uses)  
 (lipooxygenase inhibitors for treatment of acne)

RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

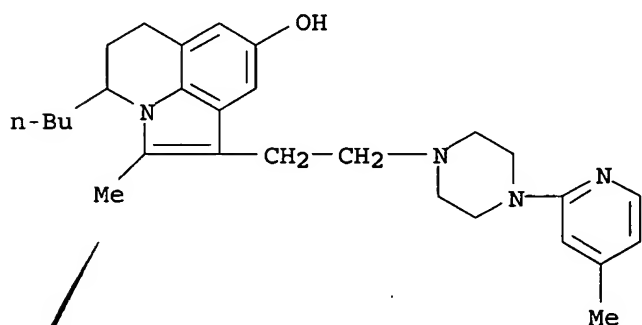
- (1) Anon; US 5142095 A HCAPLUS
- (2) Anon; US 5196431 A HCAPLUS
- (3) Anon; US 5356898 A HCAPLUS
- (4) Anon; DE 69004081 T2
- (5) Anon; WO 9108744 A HCAPLUS

IT 148490-22-6

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL  
 (Biological study); USES (Uses)  
 (lipooxygenase inhibitors for treatment of acne)

RN 148490-22-6 HCAPLUS

CN 4H-Pyrrolo[3,2,1-ij]quinolin-8-ol, 4-butyl-5,6-dihydro-2-methyl-1-[2-[4-(4-methyl-2-pyridinyl)-1-piperazinyl]ethyl]- (9CI) (CA INDEX NAME)



L13 ANSWER 3 OF 10 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 2002:31447 HCAPLUS

DN 136:102390

ED Entered STN: 11 Jan 2002

TI Preparation of pyrroloquinolones as viral DNA polymerase inhibitors for  
 antiviral agents

IN Vaillancourt, Valerie A.; Staley, Sandra; Huang, Audris; Nugent, Richard  
 A.; Chen, Ke; Nair, Sajiv K.; Nieman, James A.; Strohbach, Joseph W.

PA Pharmacia & Upjohn Company, USA

SO PCT Int. Appl., 72 pp.

CODEN: PIXXD2

DT Patent

LA English

IC ICM C07D471-04

ICS A61K031-44; C07D471-04; C07D221-00; C07D209-00

CC 28-13 (Heterocyclic Compounds (More Than One Hetero Atom))

Section cross-reference(s): 1, 7

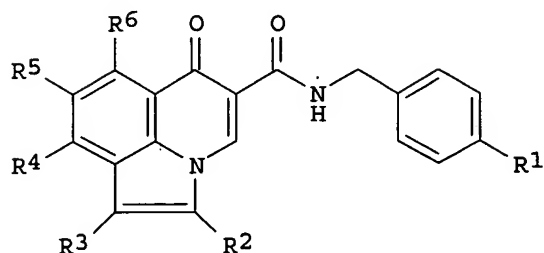
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI WO 2002002558 A1 20020110 WO 2001-US16493 20010625 <--  
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,  
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,  
GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,  
LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT,  
RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US,  
UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM  
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,  
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US 2002055636 A1 20020509 US 2001-888283 20010622 <--  
US 6525049 B2 20030225  
AU 2001071258 A5 20020114 AU 2001-71258 20010625 <--  
EP 1299386 A1 20030409 EP 2001-950235 20010625 <--  
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JP 2004502689 T2 20040129 JP 2002-507810 20010625 <--  
US 2003153561 A1 20030814 US 2002-288117 20021105 <--  
US 6683181 B2 20040127  
PRAI US 2000-215986P P 20000705 <--  
US 2001-277012P P 20010319 <--  
US 2001-888283 A3 20010622  
WO 2001-US16493 W 20010625

## CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 2002002558	ICM	C07D471-04
	ICS	A61K031-44; C07D471-04; C07D221-00; C07D209-00
US 2002055636	ECLA	C07D471/06
JP 2004502689	FTERM	4C065/AA07; 4C065/BB04; 4C065/CC09; 4C065/DD01; 4C065/EE02; 4C065/HH08; 4C065/JJ04; 4C065/KK04; 4C065/KK05; 4C065/KK07; 4C065/LL01; 4C065/PP03; 4C065/PP07; 4C065/PP13; 4C065/PP15; 4C065/PP16; 4C065/PP17; 4C065/QQ02; 4C086/AA01; 4C086/AA02; 4C086/AA03; 4C086/AA04; 4C086/CB05; 4C086/MA01; 4C086/MA04; 4C086/MA52; 4C086/MA56; 4C086/MA57; 4C086/MA59; 4C086/NA14; 4C086/ZB33; 4C086/ZC02
US 2003153561	ECLA	C07D471/06
OS MARPAT 136:102390		
GI		



I

AB The present invention provides compds. of formula [I; R1 = F, Cl, Br, cyano, NO2; R2, R3 = H, halo, OR11, COR7, CO2R11, C3-8 cycloalkyl, partially (un)saturated and optionally substituted C1-7 alkyl; R4, R5 = H, halo, aryl, S(Om)R7, COR7, CO2R10, cyano, heterocyclyl, OR11, heterocyclyloxy, (un)substituted NH2, SR11, heterocyclylthio, NHCOR13, NHSO2R13, C3-8 cycloalkyl, partially (un)saturated and optionally substituted C1-7 alkyl; R6 = H, halo, C3-8 cycloalkyl, C1-4 alkyl optionally substituted by 1-3 halo; wherein R7 = C1-7 alkyl, C3-8 cycloalkyl, (un)substituted NH2, aryl, heterocyclyl; R10 = aryl, heterocyclyl, C3-8

cycloalkyl, partially (un)saturated and optionally substituted C1-7 alkyl; R11 = H, aryl, C3-8 cycloalkyl, C1-7 alkyl optionally substituted by OH; R13 = H, aryl, C3-8 cycloalkyl, optionally substituted C1-7 alkyl], or pharmaceutically acceptable salts, racemates, solvates, tautomers, optical isomers, or prodrug derivs. thereof. These compds. are useful as antiviral agents, in particular, as agents against viruses of the herpes family including herpes simplex virus type 1, herpes simplex virus type 2, varicella zoster virus, cytomegalovirus, Epstein-Barr virus, human herpesvirus 6, human herpesvirus 7, human herpesvirus 8, or other human herpesviruses. Thus, a solution of N-(4-chlorobenzyl)-4-hydroxy-8-iodo-6-(tetrahydro-2H-pyran-4-ylmethyl)-3-quinolinecarboxamide (0.16 g), PdCl<sub>2</sub>(PPh<sub>3</sub>)<sub>2</sub>, CuI (0.018 g) and 3-butyne-1-ol (0.03 mL) in 15 mL Et<sub>2</sub>NH was stirred at room temperature for 7 days to give 71% N-(4-Chlorobenzyl)-2-(2-hydroxyethyl)-6-oxo-8-(tetrahydro-2H-pyran-4-ylmethyl)-6H-pyrrolo[3,2,1-ij]quinoline-5-carboxamide (II). II in vitro showed IC<sub>50</sub> of 0.13, 0.14, and 0.1 µM against cytomegalovirus polymerase, herpes simplex virus polymerase, and varicella zoster virus, resp.

ST pyrroloquinolinecarboxamide prepn antiviral; pyrroloquinolone prepn viral DNA polymerase inhibitor; antiviral agent herpesvirus pyrroloquinolone prepn

IT Antiviral agents

Cytomegalovirus

Human herpesvirus 1

Human herpesvirus 2

Human herpesvirus 3

Human herpesvirus 4

Human herpesvirus 6

Human herpesvirus 7

Human herpesvirus 8

(preparation of pyrroloquinolones as viral DNA polymerase inhibitors for antiviral agents against human herpesviruses)

IT 9012-90-2, DNA polymerase

RL: BSU (Biological study, unclassified); BIOL (Biological study)

(cytomegalovirus, herpes simplex virus polymerase, and varicella zoster virus; preparation of pyrroloquinolones as viral DNA polymerase inhibitors for antiviral agents)

IT 2767-70-6P, (4-Nitrobenzyl)triphenylphosphonium bromide 6425-46-3P,

4-(4-Nitrobenzyl)morpholine 14044-59-8P, 4-Pent-4-ynylmorpholine

14256-74-7P 14731-39-6P 15240-89-8P 29777-09-1P 51013-67-3P,

4-(4-Aminobenzyl)morpholine 62875-84-7P, Ethyl 4-amino-3-iodobenzoate

281652-22-0P, 4-(4-Nitrobenzylidene)tetrahydro-2H-pyran 388121-64-0P

388121-65-1P 388121-66-2P 388121-68-4P 388121-69-5P 388121-70-8P

388121-71-9P 388121-72-0P 388121-73-1P 388121-83-3P 388121-84-4P

388121-90-2P 388121-91-3P 388121-92-4P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(intermediate; preparation of pyrroloquinolones as viral DNA polymerase inhibitors for antiviral agents)

IT 388121-63-9P 388121-67-3P 388121-74-2P 388121-75-3P 388121-76-4P

388121-77-5P 388121-78-6P 388121-79-7P 388121-80-0P 388121-81-1P

388121-82-2P 388121-85-5P 388121-86-6P 388121-87-7P 388121-88-8P

388121-89-9P 388121-93-5P 388121-94-6P 388121-95-7P 388121-96-8P

388121-97-9P 388121-98-0P 388121-99-1P 388122-00-7P 388122-01-8P

388122-02-9P 388122-03-0P 388122-04-1P 388122-05-2P 388122-06-3P

388122-07-4P 388122-08-5P 388122-09-6P 388122-10-9P 388122-11-0P

388122-12-1P 388122-13-2P 388122-14-3P

388122-15-4P 388122-16-5P 388122-17-6P 388122-18-7P

388122-20-1P 388122-21-2P 388122-22-3P 388122-23-4P 388122-24-5P

388122-25-6P 388122-26-7P 388122-27-8P 388122-28-9P 388122-29-0P

388122-30-3P 388122-31-4P 388122-32-5P 388122-33-6P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU

(Therapeutic use); BIOL (Biological study); PREP (Preparation); USES

(Uses)



(preparation of pyrroloquinolones as viral DNA polymerase inhibitors for antiviral agents)

IT 87-13-8, Diethyl ethoxymethylenemalonate 94-09-7, Ethyl 4-aminobenzoate  
100-11-8, 4-Nitrobenzyl bromide 104-86-9, 4-Chlorobenzylamine  
107-19-7, Propargyl alcohol 110-91-8, Morpholine, reactions 603-35-0,  
Triphenylphosphine, reactions 627-41-8, Methyl propargyl ether  
927-74-2, 3-Butyn-1-ol 927-74-2D, 3-Butyn-1-ol, sulfonated  
polymer-supported 5221-62-5, Prop-2-ynylurea 5390-04-5, 4-Pentyn-1-ol  
5651-88-7, Phenyl propargyl sulfide 7223-38-3, 1-Dimethylamino-2-propyne  
7310-92-1 10442-03-2 29943-42-8, Tetrahydro-4H-pyran-4-one  
35161-71-8, N-Methylpropargylamine 42969-65-3, (R)-(+)-3-Butyn-2-ol  
281652-42-4

RL: RCT (Reactant); RACT (Reactant or reagent)

(reactant; preparation of pyrroloquinolones as viral DNA polymerase inhibitors for antiviral agents)

RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

- (1) Chiroscience Ltd; WO 9730999 A 1997 HCAPLUS
- (2) Chiroscience Ltd; WO 9731000 A 1997 HCAPLUS
- (3) Gerster, J; US 3917609 A 1975 HCAPLUS
- (4) Strohbach, J; WO 9932450 A 1999 HCAPLUS
- (5) Strohbach, J; WO 0040561 A 2000 HCAPLUS

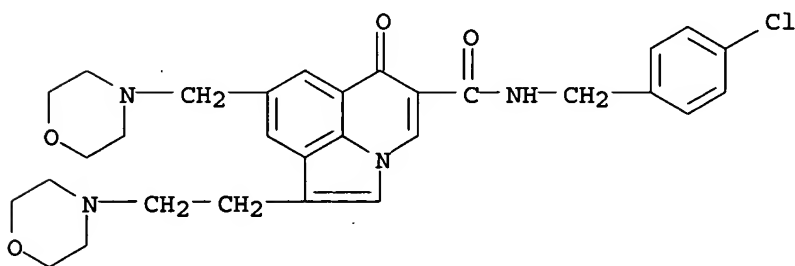
IT 388122-12-1P 388122-13-2P 388122-14-3P  
388122-15-4P 388122-16-5P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU  
(Therapeutic use); BIOL (Biological study); PREP (Preparation); USES  
(Uses)

(preparation of pyrroloquinolones as viral DNA polymerase inhibitors for antiviral agents)

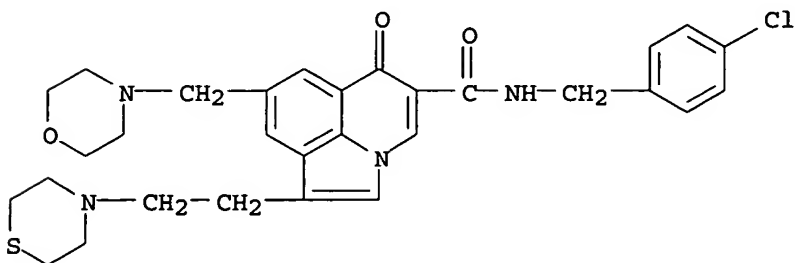
RN 388122-12-1 HCAPLUS

CN 6H-Pyrrolo[3,2,1-ij]quinoline-5-carboxamide, N-[(4-chlorophenyl)methyl]-1-[2-(4-morpholinyl)ethyl]-8-(4-morpholinylmethyl)-6-oxo- (9CI) (CA INDEX NAME)

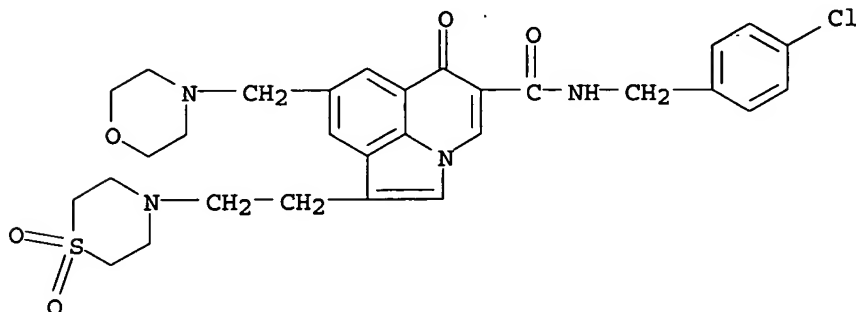


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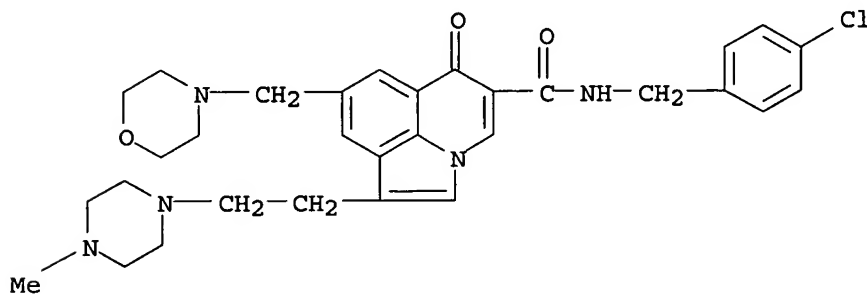
CN 6H-Pyrrolo[3,2,1-ij]quinoline-5-carboxamide, N-[(4-chlorophenyl)methyl]-8-(4-morpholinylmethyl)-6-oxo-1-[2-(4-thiomorpholinyl)ethyl]- (9CI) (CA INDEX NAME)



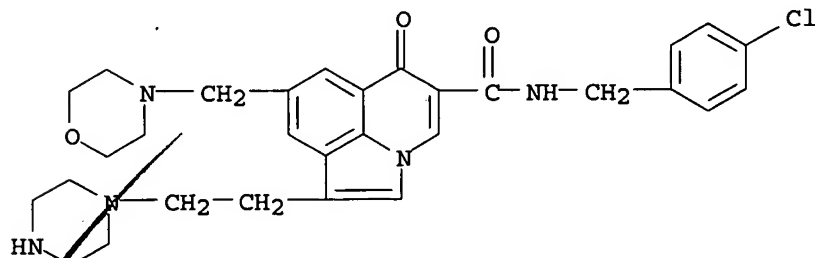
RN 388122-14-3 HCAPLUS  
 CN 6H-Pyrrolo[3,2,1-ij]quinoline-5-carboxamide, N-[(4-chlorophenyl)methyl]-1-[2-(1,1-dioxido-4-thiomorpholinyl)ethyl]-8-(4-morpholinylmethyl)-6-oxo- (9CI) (CA INDEX NAME)



RN 388122-15-4 HCAPLUS  
 CN 6H-Pyrrolo[3,2,1-ij]quinoline-5-carboxamide, N-[(4-chlorophenyl)methyl]-1-[2-(4-methyl-1-piperazinyl)ethyl]-8-(4-morpholinylmethyl)-6-oxo- (9CI) (CA INDEX NAME)



RN 388122-16-5 HCAPLUS  
 CN 6H-Pyrrolo[3,2,1-ij]quinoline-5-carboxamide, N-[(4-chlorophenyl)methyl]-8-(4-morpholinylmethyl)-6-oxo-1-[2-(1-piperazinyl)ethyl]- (9CI) (CA INDEX NAME)



L13 ANSWER 4 OF 10 HCAPLUS COPYRIGHT 2004 ACS on STN  
 AN 2001:453066 HCAPLUS  
 DN 135:61239  
 ED Entered STN: 22 Jun 2001  
 TI Preparation of 11H,12H,14H-pyrrolo[3,4-c]quinolino[8',8a',1':3,2,1]-pyrrolo[2,3-a]carbazole-5,7-diones for the treatment of proliferative diseases  
 IN Al-Awar, Rima Salim; Hecker, Kyle Andrew; Huang, Jianping; Joseph, Sajan;

Li, Tiechao; Paal, Michael; Rathnachalam, Radhakrishnan; Ray, James  
 Edward; Shih, Chuan; Waid, Philip Parker; Zhou, Xun; Zhu, Guoxin  
 PA Eli Lilly and Company, USA  
 SO PCT Int. Appl., 261 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English  
 IC ICM C07D471-06  
 ICS A61K031-55; A61K031-4353; A61P035-00; C07D487-22; C07D471-22;  
 C07D487-16; C07D487-06; C07D498-22; C07D513-06; C07D513-22;  
 C07H015-12; C07F007-18; C07D471-06; C07D221-00; C07D209-00;  
 C07D487-22; C07D243-00; C07D209-00; C07D209-00  
 CC 27-11 (Heterocyclic Compounds (One Hetero Atom))  
 Section cross-reference(s): 1, 34, 63  
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001044247	A2	20010621	WO 2000-US33273	20001218 <--
WO 2001044247	A3	20020103		
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RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
AU 2001020722	A5	20010625	AU 2001-20722	20001218 <--
EP 1242420	A2	20020925	EP 2000-984043	20001218 <--
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR			
US 2003229026	A1	20031211	US 2002-130493	20021202 <--
PRAI US 1999-171087P	P	19991216	<--	
US 1999-171220P	P	19991216	<--	
WO 2000-US33273	W	20001218	<--	

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 2001044247	ICM	C07D471-06
	ICS	A61K031-55; A61K031-4353; A61P035-00; C07D487-22; C07D471-22; C07D487-16; C07D487-06; C07D498-22; C07D513-06; C07D513-22; C07H015-12; C07F007-18; C07D471-06; C07D221-00; C07D209-00; C07D487-22; C07D243-00; C07D209-00; C07D209-00

OS CASREACT 135:61239; MARPAT 135:61239  
 GI

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB The title compds. [I; A, B = O, S; X, Y = H; or X and Y, taken together, form a bond; R1 = H, alkyl; R2 = halo, CN, alkyl, etc.; R3 = aryl, heteroaryl, etc.; R4 = H, alkyl, etc.; R5 = halo, CN, alkyl, etc.; R6 = alkyl; R7 = alkoxycarbonyl, (CH<sub>2</sub>)<sub>m</sub>Z (m = 0-5; Z = halo, OH, etc.); Q1 = O, SOn (n = 0-2), (CH<sub>2</sub>)<sub>1-3</sub>; Q2 = carbon-carbon single or double bond, etc.; Q3 = (CH<sub>2</sub>)<sub>1-3</sub>], useful for inhibiting CDK4, were prepared and formulated. E.g., a multi-step synthesis of II which showed activity (0.1055 μM) in assay of cyclin D1-CDK4 kinase with the ING peptide as substrate, and also was found to inhibit cell growth and Rb (retinoblastoma protein) phosphorylation, was given.

ST pyrroloquinolinopyrrolocarbazoledione prepn formulation antitumor cyclin dependent kinase CDK4 inhibitor; retinoblastoma protein phosphorylation inhibitor pyrroloquinolinopyrrolocarbazoledione prepn formulation

IT Transcription factors  
 RL: BSU (Biological study, unclassified); MSC (Miscellaneous); BIOL (Biological study)  
 (Rb, phosphorylation of; preparation of 11H,12H,14H-pyrrolo[3,4-c]quinolino[8',8a',1':3,2,1]-pyrrolo[2,3-a]carbazole-5,7-diones for the treatment of proliferative diseases)

IT Antitumor agents  
 Cyclin dependent kinase inhibitors  
 (preparation of 11H,12H,14H-pyrrolo[3,4-c]quinolino[8',8a',1':3,2,1]-pyrrolo[2,3-a]carbazole-5,7-diones for the treatment of proliferative diseases)

IT

345261-20-3P	345261-21-4P	345261-22-5P	345261-23-6P	345261-24-7P
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345263-95-8P	345264-01-9P			

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)  
 (preparation of 11H,12H,14H-pyrrolo[3,4-c]quinolino[8',8a',1':3,2,1]-pyrrolo[2,3-a]carbazole-5,7-diones for the treatment of proliferative diseases)

IT

345261-64-5P	345261-70-3P	345261-71-4P	345261-72-5P	345261-73-6P
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RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of 11H,12H,14H-pyrrolo[3,4-c]quinolino[8',8a',1':3,2,1]-pyrrolo[2,3-a]carbazole-5,7-diones for the treatment of proliferative diseases)

IT 147014-97-9 166433-53-0

RL: BSU (Biological study, unclassified); MSC (Miscellaneous); BIOL (Biological study)

(preparation of 11H,12H,14H-pyrrolo[3,4-c]quinolino[8',8a',1':3,2,1]-pyrrolo[2,3-a]carbazole-5,7-diones for the treatment of proliferative diseases)

IT 67-64-1, Acetone, reactions 70-23-5, Ethyl bromopyruvate 106-95-6, Allyl bromide, reactions 107-11-9, Allylamine 109-85-3, (2-Methoxyethyl)amine 110-89-4, Piperidine, reactions 110-91-8, Morpholine, reactions 123-75-1, Pyrrolidine, reactions 123-90-0, Thiomorpholine 156-87-6, Propanolamine 328-50-7, 2-Ketoglutaric acid 503-29-7, Azetidine 529-34-0,  $\alpha$ -Tetralone 534-03-2, 2-Amino-1,3-propanediol 580-15-4, 6-Aminoquinoline 591-54-8, 4-Aminopyrimidine 611-34-7, 5-Aminoquinoline 612-57-7, 6-Chloroquinoline 612-61-3, 7-Chloroquinoline 616-30-8, 2,3-Dihydroxypropylamine 617-35-6, Ethyl pyruvate 635-46-1, 1,2,3,4-Tetrahydroquinoline 687-64-9, Lysine methyl ester 879-37-8, (Indol-3-yl)acetamide 1074-88-0, Indole-7-carboxaldehyde 1119-51-3, 5-Bromo-1-pentene 1215-59-4, 5-Benzylxyindole 1670-82-2, Indole-6-carboxylic acid 1692-25-7, Pyridine-3-boronic acid 1765-93-1, 4-Fluorobenzenboronic acid 2483-46-7 3395-91-3, Methyl 3-bromopropionate 3886-08-6 4330-21-6, 3,5-Di-O-(p-toluy)l)-2-deoxy- $\alpha$ -D-ribofuranosyl chloride 4363-93-3, Quinoline-4-carboxaldehyde 4530-20-5, N-tert-Butoxycarbonylglycine 4795-29-3, 2-(Aminomethyl)tetrahydrofuran 4897-84-1, Methyl 4-bromobutyrate 5325-20-2, 2H-1,4-Benzothiazin-3(4H)-one 5470-96-2, Quinoline-2-carboxaldehyde 7284-37-9, 1-Amino-1-deoxy- $\beta$ -D-glucose 7531-52-4, L-Prolinamide 7633-56-9, N-Aminoindoline 13515-97-4, DL-Alanine methyl ester hydrochloride 14465-61-3, 1,2-Dihydro-2,2-dimethylquinoline 15761-38-3, N-tert-Butoxycarbonyl-L-alanine 15861-36-6, 6-Cyanoindole 17114-97-5 23159-07-1, 1-(3-Aminopropyl)pyrrolidine 27578-60-5, 1-(2-Aminoethyl)piperidine 39178-35-3 40149-67-5, DL-Aspartic acid dimethyl ester 40499-83-0, 3-Hydroxypyrrolidine 51417-51-7, 7-Bromo-1H-indole 51482-39-4 52415-29-9, 6-Bromoindole 56344-32-2 60537-19-1 78304-53-7, 5-Phenoxyindole 91182-86-4 104295-51-4 105454-25-9 117142-26-4 132664-85-8, 2-(Aminomethyl)-5-methylpyrazine 137049-00-4 150114-41-3, 1-Methylindole-3-acetamide 152213-62-2, 6-Bromoindole-3-acetamide 169674-01-5, 5,6-Difluoroindole 189016-82-8 220407-33-0 345263-49-2 345264-85-9 345264-86-0 345264-87-1 345264-88-2 345264-89-3 345264-90-6 345264-91-7 345264-92-8 345264-93-9 345264-94-0 345264-95-1 345264-96-2 345264-97-3 345264-98-4 345264-99-5 345265-00-1 345265-01-2 345265-02-3 345265-03-4 345265-04-5 345265-05-6 345265-06-7 345265-07-8

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RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of 11H,12H,14H-pyrrolo[3,4-c]quinolino[8',8a',1':3,2,1]-pyrrolo[2,3-a]carbazole-5,7-diones for the treatment of proliferative diseases)

IT 209-78-9P, Pyrrolo[3,2,1-hi]indole 394-69-4P, 5-Fluoroquinoline  
 1075-26-9P, 1H-Indole-6-methanol 1196-70-9P, 1H-Indole-6-carboxaldehyde  
 1701-57-1P, 2,3,4,5-Tetrahydro-1H-benzo[b]azepine 3080-99-7P  
 3349-64-2P 4424-80-0P, 1,3,4,5-Tetrahydrobenzo[b]azepin-2-one  
 5840-01-7P 20364-30-1P, 1,2,3,4-Tetrahydro-2,2-dimethylquinoline  
 21005-51-6P 22715-22-6P, 4,5-Dihydro-pyrrolo[3,2,1-hi]indole  
 40971-36-6P 46054-15-3P, 1H-Indole-6-ethanamine 50820-65-0P  
 59611-52-8P 62995-58-8P 90562-35-9P 92506-77-9P 94239-08-4P  
 98622-14-1P 116476-45-0P, 4,5,6,7-Tetrahydroazepino[3,2,1-hi]indole  
 118726-60-6P, 4,5-Dihydro-pyrrolo[3,2,1-hi]indole-2-carboxylic acid  
 124730-53-6P 124730-54-7P 124730-56-9P 131849-21-3P 141650-35-3P  
 147621-16-7P, 6-(4-Fluorophenyl)indole 152712-40-8P 152712-44-2P  
 152712-45-3P 345232-22-6P 345264-02-0P 345264-03-1P 345264-04-2P  
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RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of 11H,12H,14H-pyrrolo[3,4-c]quinolino[8',8a',1':3,2,1]-pyrrolo[2,3-a]carbazole-5,7-diones for the treatment of proliferative diseases)

IT 345264-52-0P, 1H-Indole-7-ethanol 345264-69-9P 345265-47-6P

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of 11H,12H,14H-pyrrolo[3,4-c]quinolino[8',8a',1':3,2,1]-pyrrolo[2,3-a]carbazole-5,7-diones for the treatment of proliferative diseases)

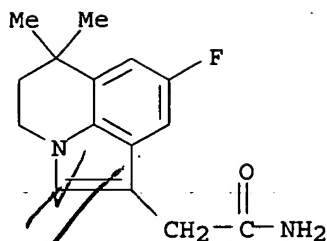
IT 345264-47-3P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of 11H,12H,14H-pyrrolo[3,4-c]quinolino[8',8a',1':3,2,1]-pyrrolo[2,3-a]carbazole-5,7-diones for the treatment of proliferative diseases)

RN 345264-47-3 HCAPLUS

CN 4H-Pyrrolo[3,2,1-ij]quinoline-1-acetamide, 8-fluoro-5,6-dihydro-6,6-dimethyl- (9CI) (CA INDEX NAME)



L13 ANSWER 5 OF 10 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 2001:453056 HCAPLUS

DN 135:61238

ED Entered STN: 22 Jun 2001

TI Preparation of maleimide and carbazole derivatives for the treatment of proliferative diseases

IN Al-Awar, Rima Salim; Hecker, Kyle Andrew; Huang, Jianping; Joseph, Sajan; Ray, James Edward; Waid, Philip Parker

PA Eli Lilly and Company, USA

SO PCT Int. Appl., 110 pp.

CODEN: PIXXD2

DT Patent

LA English

IC ICM C07D403-14

ICS A61K031-407; A61P035-00

CC 27-11 (Heterocyclic Compounds (One Hetero Atom))

Section cross-reference(s): 1, 63

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001044235	A2	20010621	WO 2000-US33274	20001218 <--
	WO 2001044235	A3	20020117		
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RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
EP	1250334	A2	20021023	EP 2000-989233	20001218 <--
EP	1250334	B1	20040519		
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US	2003092676	A1	20030515	US 2002-130801	20020521 <--
US	6743785	B2	20040601		
PRAI	US 1999-171219P	P	19991216	<--	
US	1999-171269P	P	19991216	<--	
WO	2000-US33274	W	20001218	<--	

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES	
WO 2001044235	ICM	C07D403-14	
	ICS	A61K031-407; A61P035-00	
US 2003092676	ECLA	C07D487/22; C07D487/22; C07F007/18C4D4D	<--
OS	MARPAT	135:61238	
GI			

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB The title compds. [I; A, B = O, S; X, Y = H; or X and Y, taken together, form a bond; R1 = H, alkyl; R5, R51 = halo, CN, alkyl, etc.; R6, R61 = alkyl; R7, R71 = alkoxycarbonyl, (CH<sub>2</sub>)<sub>m</sub>Z; Z = halo, OH, CO<sub>2</sub>H, etc.; Q1, Q6 = O, SO<sub>n</sub>, (CH<sub>2</sub>)<sub>1-3</sub>; Q2, Q5 = carbon-carbon single or double bond, NH, etc.; Q3, Q4 = (CH<sub>2</sub>)<sub>1-3</sub>; m = 0-5; n = 0-2], useful for inhibiting CDK4, were prepared and formulated. E.g., a multi-step synthesis of II.HCl which showed activity (0.6051 μM) in assay of cyclin D1-cdk4 kinase with the ING peptide as substrate, was given. Some of compds. I were found to inhibit cell growth and to inhibit Rb (retinoblastoma protein) phosphorylation.

ST cyclin dependent kinase CDK4 inhibitor maleimide carbazole prepn formulation; antitumor maleimide carbazole prepn formulation; retinoblastoma protein phosphorylation inhibitor maleimide carbazole prepn formulation

IT Transcription factors  
RL: BSU (Biological study, unclassified); MSC (Miscellaneous); BIOL (Biological study)  
(Rb, phosphorylation of; inhibitors; preparation of maleimide and carbazole derivs. for the treatment of proliferative diseases)

IT Antitumor agents  
Cyclin dependent kinase inhibitors  
(preparation of maleimide and carbazole derivs. for the treatment of proliferative diseases)

IT 345333-87-1P 345334-01-2P 345334-09-0P 345334-21-6P 345334-33-0P  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)  
(preparation of maleimide and carbazole derivs. for the treatment of proliferative diseases)

IT 345333-91-7P 345333-95-1P 345333-99-5P 345334-03-4P 345334-05-6P  
345334-13-6P 345334-17-0P 345334-25-0P 345334-29-4P 345334-37-4P  
345334-41-0P 345334-45-4P 345334-49-8P 345334-53-4P  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(preparation of maleimide and carbazole derivs. for the treatment of proliferative diseases)

IT 147014-97-9 166433-53-0  
RL: BSU (Biological study, unclassified); MSC (Miscellaneous); BIOL (Biological study)  
(preparation of maleimide and carbazole derivs. for the treatment of proliferative diseases)

IT 70-23-5, Ethyl bromopyruvate 106-95-6, Allyl bromide, reactions  
107-11-9, Allylamine 328-50-7, 2-Ketoglutaric acid 529-34-0,  
α-Tetralone 580-15-4, 6-Aminoquinoline 611-34-7,  
5-Aminoquinoline 612-57-7, 6-Chloroquinoline 612-61-3,  
7-Chloroquinoline 617-35-6, Ethyl pyruvate 635-46-1,  
1,2,3,4-Tetrahydroquinoline 687-64-9, L-Lysine methyl ester 1074-88-0,  
Indole-7-carboxaldehyde 1119-51-3, 5-Bromo-1-pentene 1215-59-4,  
5-Benzyloxyindole 1670-82-2, Indole-6-carboxylic acid 1692-25-7,  
Pyridine-3-boronic acid 1765-93-1, 4-Fluorobenzenboronic acid  
3395-91-3, Methyl 3-bromopropionate 3886-08-6 4363-93-3,  
Quinoline-4-carboxaldehyde 4897-84-1, Methyl 4-bromobutyrate  
5325-20-2, 2H-1,4-Benzothiazin-3(4H)-one 5470-96-2, Quinoline-2-carboxaldehyde 7633-56-9, N-Aminoindoline 13515-97-4, DL-Alanine methyl ester hydrochloride 14465-61-3, 1,2-Dihydro-2,2-dimethylquinoline 15861-36-6, 6-Cyanoindole 17114-97-5 51417-51-7, 7-Bromo-1H-indole 51482-39-4 52415-29-9, 6-Bromoindole 75315-63-8, N-



(Benzyloxycarbonyl)succinimide 78304-53-7, 5-Phenoxyindole  
 169674-01-5, 5,6-Difluoroindole 189016-82-8 345264-85-9 345264-86-0  
 345264-90-6 345264-91-7 345264-92-8 345265-10-3 345265-41-0  
 345336-95-0 345337-08-8

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of maleimide and carbazole derivs. for the treatment of  
 proliferative diseases)

IT 394-69-4P 1075-26-9P, 1H-Indole-6-methanol 1196-70-9P,  
 1H-Indole-6-carboxaldehyde 1701-57-1P 3080-99-7P 3349-64-2P  
 4424-80-0P 5840-01-7P 20364-30-1P, 1,2,3,4-Tetrahydro-2,2-  
 dimethylquinoline 21005-51-6P 22715-22-6P 40971-36-6P 46054-15-3P,  
 1H-Indole-6-ethanamine 50820-65-0P 59611-52-8P 62995-58-8P  
 67752-53-8P 90562-35-9P 92108-32-2P 92506-77-9P 94239-08-4P,  
 7-Vinyl-1H-indole 98622-14-1P 116476-45-0P 118726-60-6P  
 124730-53-6P 124730-54-7P 124730-56-9P 131849-21-3P 141650-35-3P  
 147621-16-7P, 6-(4-Fluorophenyl)indole 152712-40-8P 152712-44-2P  
 152712-45-3P 345232-22-6P 345264-02-0P 345264-04-2P 345264-05-3P  
 345264-06-4P 345264-07-5P 345264-08-6P 345264-09-7P 345264-10-0P  
 345264-11-1P 345264-12-2P 345264-13-3P 345264-14-4P 345264-15-5P  
 345264-16-6P 345264-19-9P 345264-20-2P 345264-21-3P 345264-22-4P  
 345264-23-5P 345264-24-6P 345264-25-7P 345264-26-8P 345264-30-4P  
 345264-31-5P 345264-32-6P 345264-33-7P 345264-34-8P 345264-35-9P  
 345264-37-1P 345264-38-2P 345264-39-3P 345264-40-6P 345264-41-7P  
 345264-42-8P 345264-43-9P 345264-44-0P 345264-45-1P 345264-46-2P  
 345264-47-3P 345264-48-4P 345264-49-5P 345264-50-8P  
 345264-51-9P 345264-52-0P, 1H-Indole-7-ethanol 345264-53-1P  
 345264-54-2P 345264-55-3P 345264-56-4P 345264-57-5P 345264-58-6P  
 345264-59-7P 345264-60-0P 345264-61-1P 345264-62-2P 345264-63-3P  
 345264-64-4P 345264-65-5P 345264-66-6P 345264-67-7P 345264-68-8P  
 345264-70-2P 345264-71-3P 345264-72-4P 345264-73-5P 345264-74-6P  
 345264-75-7P 345264-78-0P 345264-79-1P 345264-80-4P 345264-81-5P  
 345264-82-6P 345264-83-7P 345264-84-8P 345334-99-8P 345335-06-0P  
 345335-52-6P 345336-72-3P 345336-85-8P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
 (Reactant or reagent)

(preparation of maleimide and carbazole derivs. for the treatment of  
 proliferative diseases)

IT 209-78-9P, Pyrrolo[3,2,1-hi]indole 345264-69-9P

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of maleimide and carbazole derivs. for the treatment of  
 proliferative diseases)

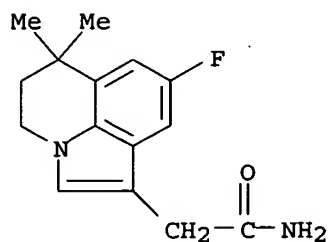
IT 345264-47-3P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
 (Reactant or reagent)

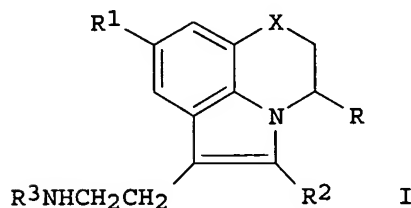
(preparation of maleimide and carbazole derivs. for the treatment of  
 proliferative diseases)

RN 345264-47-3 HCAPLUS

CN 4H-Pyrrolo[3,2,1-ij]quinoline-1-acetamide, 8-fluoro-5,6-dihydro-6,6-  
 dimethyl- (9CI) (CA INDEX NAME)



✓  
 L13 ANSWER 6 OF 10 HCAPLUS COPYRIGHT 2004 ACS on STN  
 AN 2000:380069 HCAPLUS  
 DN 133:150448  
 ED Entered STN: 08 Jun 2000  
 TI Pyrrolo[3,2,1-ij]quinoline derivatives, 5-HT2c receptor agonists with selectivity over the 5-HT2a receptor: potential therapeutic applications for epilepsy and obesity  
 AU Isaac, Methvin; Slassi, Abdelmalik; O'Brien, Anne; Edwards, Louise; MacLean, Neil; Bueschkens, Donna; Lee, David K. H.; McCallum, Kirk; De Lannoy, Ines; Demchyshyn, Lidia; Kamboj, Rajender  
 CS NPS Allelix Corp., Mississauga, ON, L4V 1V7, Can.  
 SO Bioorganic & Medicinal Chemistry Letters (2000), 10(9), 919-921  
 CODEN: BMCLE8; ISSN: 0960-894X  
 PB Elsevier Science Ltd.  
 DT Journal  
 LA English  
 CC 27-17 (Heterocyclic Compounds (One Hetero Atom))  
 Section cross-reference(s): 1, 28  
 GI

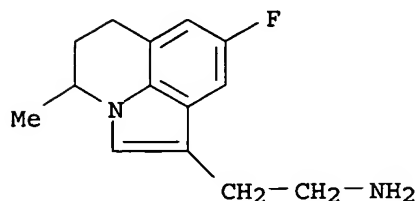


AB Title compds. I (R, R2, R3 = H, Me; R1 = H, F, Cl; X = CH2, S) were prepared and found to be agonists at 5-HT2c receptors with selectivity over 5-HT2a.  
 ST pyrroloquinolineethanamine deriv prepn 5HT2c receptor agonist  
 IT 5-HT receptors  
 RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)  
 (5-HT2C; pyrroloquinolineethanamine derivs. as agonists of)  
 IT 287104-18-1P  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent)  
 (preparation and selective 5-HT2c receptor agonist activity of)  
 IT 33131-92-9P 40619-71-4P 287104-19-2P 287104-20-5P  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)  
 (preparation and selective 5-HT2c receptor agonist activity of)  
 RE.CNT 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 RE  
 (1) Goldstein, S; Synthesis 1989, V221  
 (2) Grandberg, I; Khim Geterotsikl Soedin 1973, V2, P213  
 (3) Hoyer, D; Pharmacological Rev 1994, V46, P157 HCAPLUS  
 (4) Kahn, R; Biol Psychiat 1991, V30, P1139 HCAPLUS  
 (5) Martin, J; J Med Chem 1997, V40, P2762  
 (6) Martin, J; J Pharmacol Exp Ther 1998, V286, P913 HCAPLUS  
 (7) Steck, A; J Heterocycl Chem 1974, V11, P387  
 (8) Tecott, L; Nature 1995, V374, P542 HCAPLUS  
 (9) van Wijngaarden, I; Med Chem 1993, V36, P3693 HCAPLUS  
 (10) Watt, S; J Pharmacol Exp Ther 1996, V279, P1541  
 (11) Wright, D; J Comp Neurol 1995, V351, P357 HCAPLUS  
 IT 287104-18-1P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent) (preparation and selective 5-HT<sub>2c</sub> receptor agonist activity of)

RN 287104-18-1 HCAPLUS

CN 4H-Pyrrolo[3,2,1-ij]quinoline-1-ethanamine, 8-fluoro-5,6-dihydro-4-methyl- (9CI) (CA INDEX NAME)

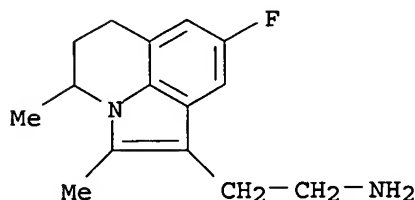


IT 287104-19-2P 287104-20-5P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation) (preparation and selective 5-HT<sub>2c</sub> receptor agonist activity of)

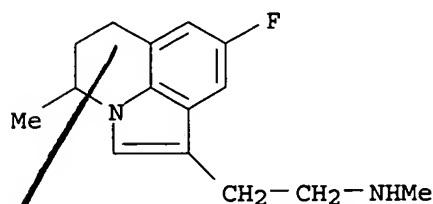
RN 287104-19-2 HCAPLUS

CN 4H-Pyrrolo[3,2,1-ij]quinoline-1-ethanamine, 8-fluoro-5,6-dihydro-2,4-dimethyl- (9CI) (CA INDEX NAME)



RN 287104-20-5 HCAPLUS

CN 4H-Pyrrolo[3,2,1-ij]quinoline-1-ethanamine, 8-fluoro-5,6-dihydro-N,4-dimethyl- (9CI) (CA INDEX NAME)



L13 ANSWER 7 OF 10 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1995:352128 HCAPLUS

DN 122:160453

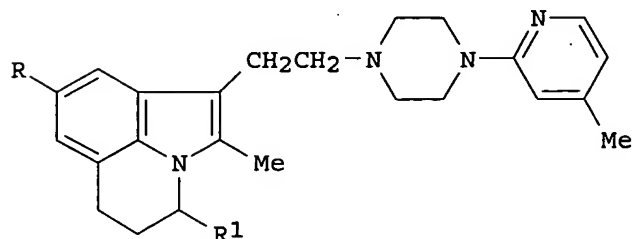
ED Entered STN: 15 Feb 1995

TI Synthesis, Structure-Activity Relationships, and Pharmacological Evaluation of Pyrrolo[3,2,1-ij]quinoline Derivatives: Potent Histamine and Platelet Activating Factor Antagonism and 5-Lipoxygenase Inhibitory Properties. Potential Therapeutic Application in Asthma

AU Paris, Dominique; Cottin, Michel; Demonchaux, Patrice; Augert, Guy; Dupassieux, Pierre; Lenoir, Patrick; Peck, Michael J.; Jasserand, Daniel

CS Laboratoires de Therapeutique Moderne, Solvay Pharma, Chatillon-sur-

Chalaronne, 01400, Fr.  
 SO Journal of Medicinal Chemistry (1995), 38(4), 669-85  
 CODEN: JMCMAR; ISSN: 0022-2623  
 PB American Chemical Society  
 DT Journal  
 LA English  
 CC 27-18 (Heterocyclic Compounds (One Hetero Atom))  
 Section cross-reference(s): 1  
 GI



I

AB A series of pyrrolo[3,2,1-ij]quinoline derivs., e.g. I (R = H, Me NH<sub>2</sub>, cinnamoyl, benzyl; R<sub>1</sub> = H, Bu) was synthesized and evaluated for their in vitro and in vivo activities against histamine, platelet activating factor (PAF), and leukotrienes which are recognized to be of importance in asthma. The structure-activity relationship studies have shown that the optimum moiety on the 1-position of the pyrroloquinoline nucleus is a 2-[4-(4-methyl-2-pyridinyl)-1-piperazinyl]ethyl chain in conjunction with a Me group on the 2-position for potent antagonism of both histamine and PAF. The introduction of substituents on the 8- and 4-positions was also investigated in order to increase the potency of 5-lipoxygenase inhibition while retaining or improving the activities against histamine and PAF. This series is exemplified by 4-n-butyl-5,6-dihydro-8-hydroxy-2-methyl-1-[2-[4-(4-methyl-2-pyridinyl)-1-piperazinyl]ethyl]-4H-pyrrolo[3,2,1-ij]quinoline (I, R = OH, R<sub>1</sub> = Bu) (KC 11404) which was found to be active against all three of the selected mediators. KC 11404 was found to be orally active in guinea pig models against the histaminic phase of antigen-induced bronchospasm and PAF-induced bronchoconstriction (ED<sub>50</sub> = 1.9 and 2.1 μmol/kg, resp.). When tested against the leukotriene-dependent phase of the antigen-induced bronchoconstriction, compound KC 11404 showed the same potency as zileuton.

ST pyridinylpiperazinylethylpyrroloquinoline prepn asthma treatment; histamine activating factor pyrroloquinoline; platelet activating factor pyrroloquinoline; lipoxygenase inhibitor pyrroloquinoline

IT Antihistaminics  
 (synthesis, structure-activity relationships, and pharmacol. evaluation of pyrroloquinolines for therapeutic application in asthma)

IT Bronchodilators  
 (antiasthmatics, synthesis, structure-activity relationships, and pharmacol. evaluation of pyrroloquinolines for therapeutic application in asthma)

IT Molecular structure-biological activity relationship  
 (asthma-inhibiting, synthesis, structure-activity relationships, and pharmacol. evaluation of pyrroloquinolines for therapeutic application in asthma)

IT 65154-06-5, Platelet Activating Factor  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)  
 (antagonists; synthesis, structure-activity relationships, and pharmacol. evaluation of pyrroloquinolines for therapeutic application in asthma)

IT 80619-02-9, 5-Lipoxygenase  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)  
 (inhibitors; synthesis, structure-activity relationships, and pharmacol. evaluation of pyrroloquinolines for therapeutic application in asthma)

IT 148489-92-3P 148489-93-4P 148489-94-5P 148489-95-6P  
 148489-96-7P 148489-97-8P 148489-98-9P 148489-99-0P  
 148490-04-4P 148490-08-8P 148490-10-2P 148490-11-3P  
 148490-12-4P 148490-14-6P 148490-15-7P  
 148490-16-8P 148490-17-9P 148490-23-7P 148490-25-9P  
 148490-26-0P 148490-27-1P 148490-28-2P 148490-29-3P 148490-31-7P  
 148490-32-8P 148490-33-9P 148490-56-6P 148490-60-2P  
 148490-62-4P 148490-63-5P 148490-64-6P 148490-65-7P  
 148490-66-8P 161151-01-5P 161151-02-6P 161151-03-7P  
 161151-04-8P 161151-05-9P 161151-06-0P 161151-07-1P  
 161151-08-2P 161151-09-3P 161151-10-6P 161151-11-7P 161151-12-8P  
 161151-13-9P 161151-14-0P 161151-15-1P  
 161151-16-2P 161151-17-3P 161151-18-4P  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)  
 (synthesis, structure-activity relationships, and pharmacol. evaluation of pyrroloquinolines for therapeutic application in asthma)

IT 148490-22-6P  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (synthesis, structure-activity relationships, and pharmacol. evaluation of pyrroloquinolines for therapeutic application in asthma)

IT 91-22-5, Quinoline, reactions 91-62-3, 6-Methylquinoline 91-63-4, 2-Methylquinoline 5263-87-6  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (synthesis, structure-activity relationships, and pharmacol. evaluation of pyrroloquinolines for therapeutic application in asthma)

IT 1780-19-4P 5825-45-6P 24005-23-0P 27328-23-0P 40624-66-6P  
 54282-74-5P 66556-07-8P 83260-97-3P 108248-90-4P 123612-50-0P  
 123612-53-3P 123612-55-5P 123629-22-1P 148490-36-2P 148490-37-3P  
 148490-41-9P 148490-45-3P 148490-47-5P 149542-66-5P 149542-67-6P  
 149542-75-6P 149542-80-3P 161151-19-5P 161151-20-8P 161151-21-9P  
 161151-22-0P 161151-23-1P 161151-24-2P 161151-25-3P 161151-26-4P  
 161151-27-5P 161151-28-6P 161151-29-7P 161151-30-0P 161151-31-1P  
 161151-32-2P 161151-33-3P 161151-34-4P 161151-35-5P 161151-36-6P  
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 161151-47-9P 161151-48-0P 161151-49-1P 161151-50-4P 161151-51-5P  
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 161151-57-1P 161151-58-2P 161151-59-3P  
 161151-60-6P 161151-61-7P 161151-62-8P  
 161151-63-9P 161151-64-0P 161151-65-1P  
 161151-66-2P 161151-67-3P 161151-68-4P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (synthesis, structure-activity relationships, and pharmacol. evaluation of pyrroloquinolines for therapeutic application in asthma)

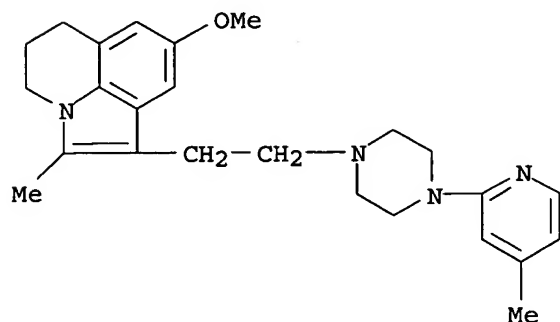
IT 148489-96-7P 148489-97-8P 148490-10-2P  
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 148490-63-5P 148490-66-8P 161151-05-9P  
 161151-13-9P 161151-14-0P 161151-15-1P  
 161151-16-2P 161151-17-3P 161151-18-4P  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study)

study); PREP (Preparation)

(synthesis, structure-activity relationships, and pharmacol. evaluation  
of pyrroloquinolines for therapeutic application in asthma)

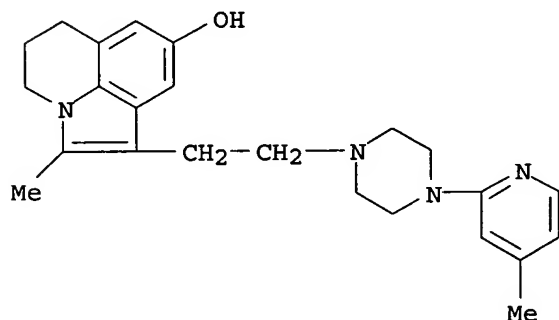
RN 148489-96-7 HCAPLUS

CN 4H-Pyrrolo[3,2,1-ij]quinoline, 5,6-dihydro-8-methoxy-2-methyl-1-[2-[4-(4-methyl-2-pyridinyl)-1-piperazinyl]ethyl]- (9CI) (CA INDEX NAME)



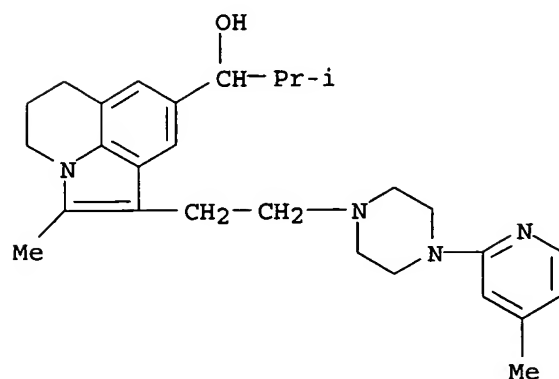
RN 148489-97-8 HCAPLUS

CN 4H-Pyrrolo[3,2,1-ij]quinolin-8-ol, 5,6-dihydro-2-methyl-1-[2-[4-(4-methyl-2-pyridinyl)-1-piperazinyl]ethyl]- (9CI) (CA INDEX NAME)



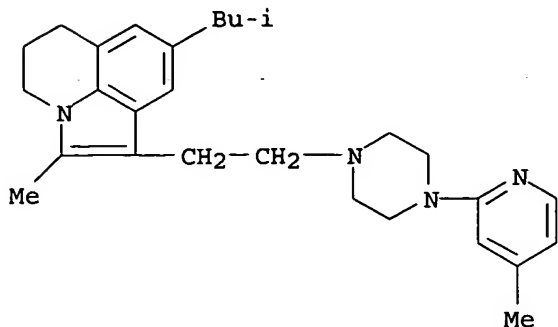
RN 148490-10-2 HCAPLUS

CN 4H-Pyrrolo[3,2,1-ij]quinoline-8-methanol, 5,6-dihydro-2-methyl- $\alpha$ -(1-methylethyl)-1-[2-[4-(4-methyl-2-pyridinyl)-1-piperazinyl]ethyl]- (9CI)  
(CA INDEX NAME)



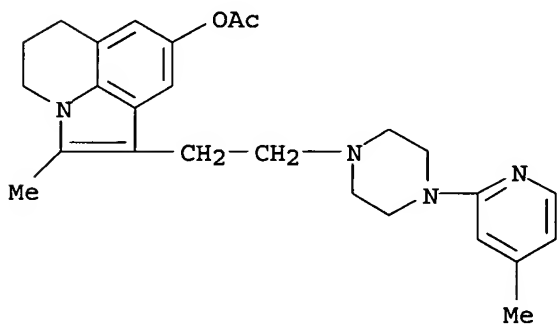
RN 148490-12-4 HCAPLUS

CN 4H-Pyrrolo[3,2,1-ij]quinoline, 5,6-dihydro-2-methyl-8-(2-methylpropyl)-1-[2-[4-(4-methyl-2-pyridinyl)-1-piperazinyl]ethyl]- (9CI) (CA INDEX NAME)



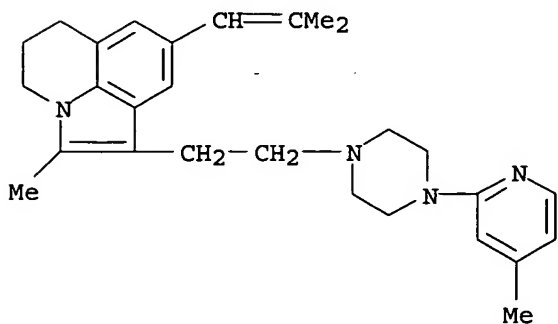
RN 148490-14-6 HCAPLUS

CN 4H-Pyrrolo[3,2,1-ij]quinolin-8-ol, 5,6-dihydro-2-methyl-1-[2-[4-(4-methyl-2-pyridinyl)-1-piperazinyl]ethyl]-, acetate (ester) (9CI) (CA INDEX NAME)



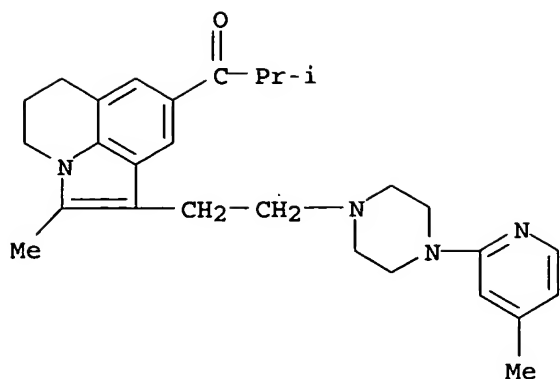
RN 148490-16-8 HCAPLUS

CN 4H-Pyrrolo[3,2,1-ij]quinoline, 5,6-dihydro-2-methyl-8-(2-methyl-1-propenyl)-1-[2-[4-(4-methyl-2-pyridinyl)-1-piperazinyl]ethyl]- (9CI) (CA INDEX NAME)



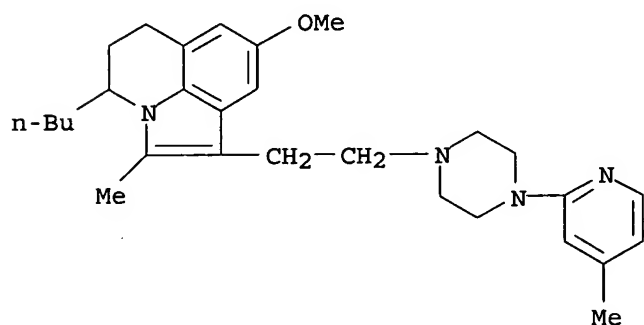
RN 148490-17-9 HCAPLUS

CN 1-Propanone, 1-[5,6-dihydro-2-methyl-1-[2-[4-(4-methyl-2-pyridinyl)-1-piperazinyl]ethyl]-4H-pyrrolo[3,2,1-ij]quinolin-8-yl]-2-methyl- (9CI) (CA INDEX NAME)



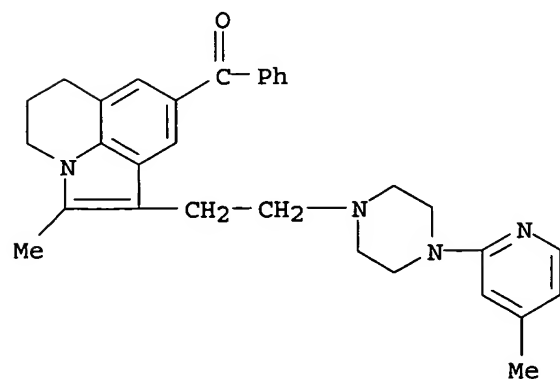
RN 148490-60-2 HCAPLUS

CN 4H-Pyrrolo[3,2,1-ij]quinoline, 4-butyl-5,6-dihydro-8-methoxy-2-methyl-1-[2-[4-(4-methyl-2-pyridinyl)-1-piperazinyl]ethyl]- (9CI) (CA INDEX NAME)



RN 148490-62-4 HCAPLUS

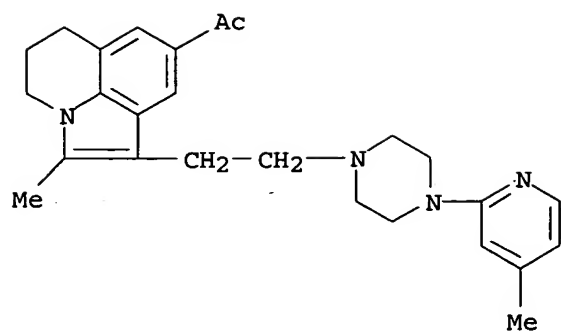
CN Methanone, [5,6-dihydro-2-methyl-1-[2-[4-(4-methyl-2-pyridinyl)-1-piperazinyl]ethyl]-4H-pyrrolo[3,2,1-ij]quinolin-8-yl]phenyl- (9CI) (CA INDEX NAME)



RN 148490-63-5 HCAPLUS

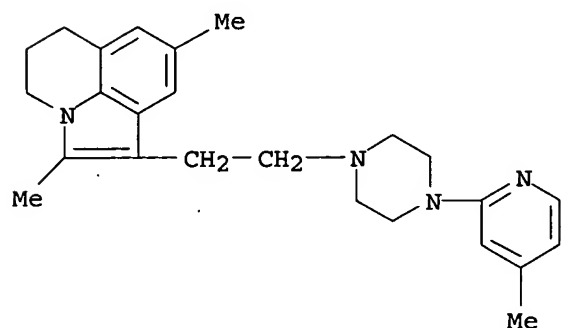
CN Ethanone, 1-[5,6-dihydro-2-methyl-1-[2-[4-(4-methyl-2-pyridinyl)-1-piperazinyl]ethyl]-4H-pyrrolo[3,2,1-ij]quinolin-8-yl]- (9CI) (CA INDEX NAME)





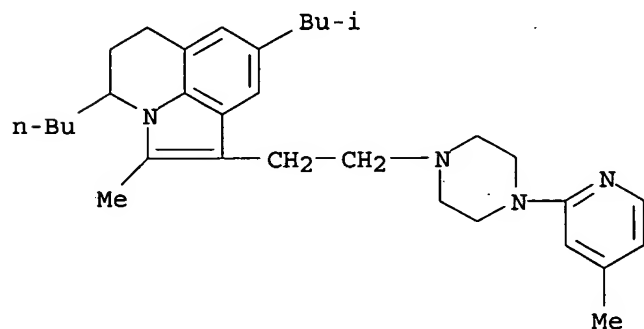
RN 148490-66-8 HCAPLUS

CN 4H-Pyrrolo[3,2,1-ij]quinoline, 5,6-dihydro-2,8-dimethyl-1-[2-[4-(4-methyl-2-pyridinyl)-1-piperazinyl]ethyl]- (9CI) (CA INDEX NAME)



RN 161151-05-9 HCAPLUS

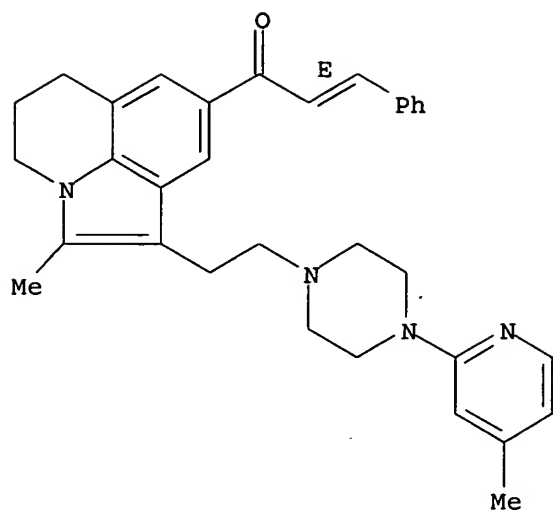
CN 4H-Pyrrolo[3,2,1-ij]quinoline, 4-butyl-5,6-dihydro-2-methyl-8-(2-methylpropyl)-1-[2-[4-(4-methyl-2-pyridinyl)-1-piperazinyl]ethyl]- (9CI) (CA INDEX NAME)



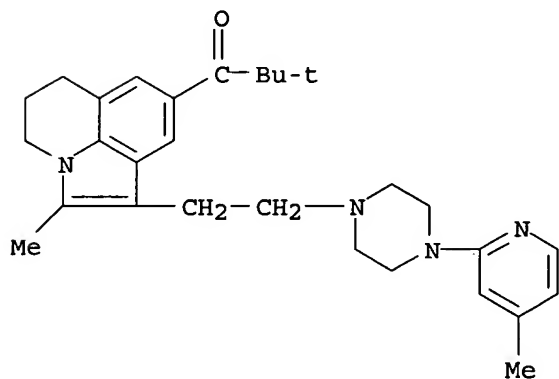
RN 161151-13-9 HCAPLUS

CN 2-Propen-1-one, 1-[5,6-dihydro-2-methyl-1-[2-[4-(4-methyl-2-pyridinyl)-1-piperazinyl]ethyl]-4H-pyrrolo[3,2,1-ij]quinolin-8-yl]-3-phenyl-, (E)- (9CI) (CA INDEX NAME)

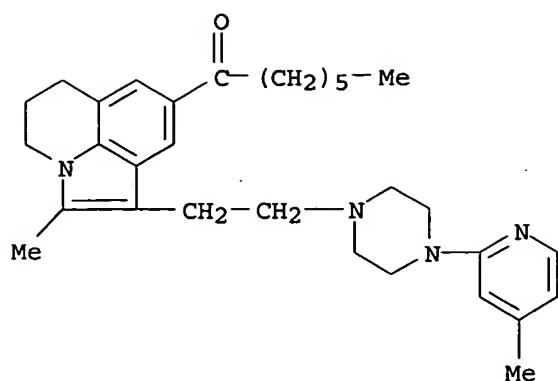
Double bond geometry as shown.



RN 161151-14-0 HCAPLUS  
 CN 1-Propanone, 1-[5,6-dihydro-2-methyl-1-[2-[4-(4-methyl-2-pyridinyl)-1-piperazinyl]ethyl]-4H-pyrrolo[3,2,1-ij]quinolin-8-yl]-2,2-dimethyl- (9CI)  
 (CA INDEX NAME)

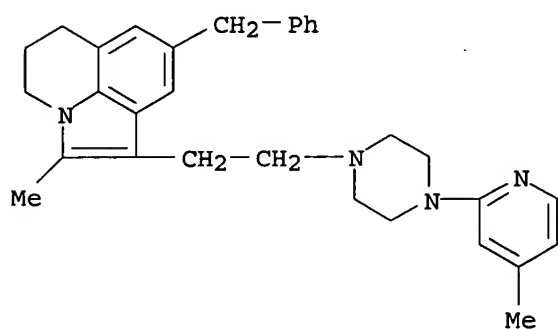


RN 161151-15-1 HCAPLUS  
 CN 1-Heptanone, 1-[5,6-dihydro-2-methyl-1-[2-[4-(4-methyl-2-pyridinyl)-1-piperazinyl]ethyl]-4H-pyrrolo[3,2,1-ij]quinolin-8-yl]- (9CI) (CA INDEX NAME)



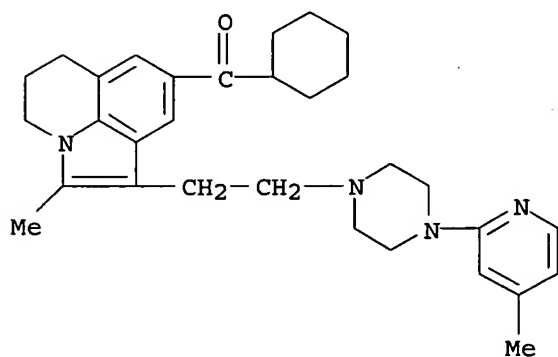
RN 161151-16-2 HCAPLUS

CN 4H-Pyrrolo[3,2,1-ij]quinoline, 5,6-dihydro-2-methyl-1-[2-[4-(4-methyl-2-pyridinyl)-1-piperazinyl]ethyl]-8-(phenylmethyl)- (9CI) (CA INDEX NAME)



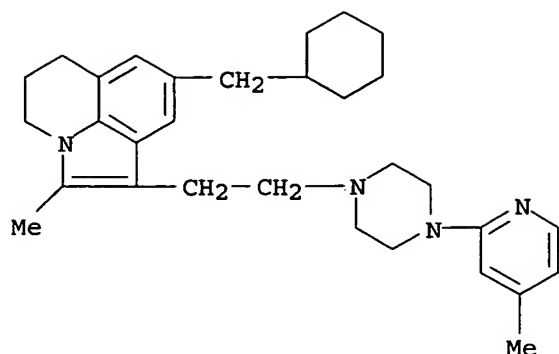
RN 161151-17-3 HCAPLUS

CN Methanone, cyclohexyl[5,6-dihydro-2-methyl-1-[2-[4-(4-methyl-2-pyridinyl)-1-piperazinyl]ethyl]-4H-pyrrolo[3,2,1-ij]quinolin-8-yl]- (9CI) (CA INDEX NAME)



RN 161151-18-4 HCAPLUS

CN 4H-Pyrrolo[3,2,1-ij]quinoline, 8-(cyclohexylmethyl)-5,6-dihydro-2-methyl-1-[2-[4-(4-methyl-2-pyridinyl)-1-piperazinyl]ethyl]- (9CI) (CA INDEX NAME)



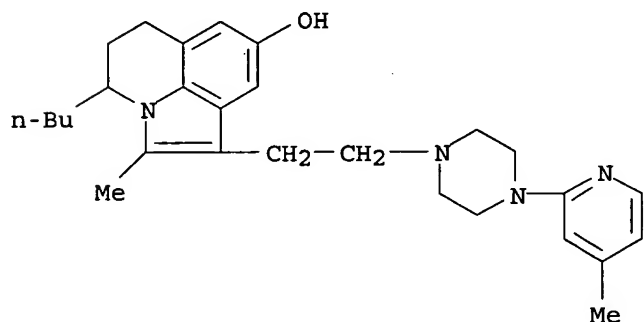
IT 148490-22-6P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(synthesis, structure-activity relationships, and pharmacol. evaluation of pyrroloquinolines for therapeutic application in asthma)

RN 148490-22-6 HCAPLUS

CN 4H-Pyrrolo[3,2,1-ij]quinolin-8-ol, 4-butyl-5,6-dihydro-2-methyl-1-[2-[4-(4-methyl-2-pyridinyl)-1-piperazinyl]ethyl]- (9CI) (CA INDEX NAME)



IT 161151-58-2P 161151-59-3P 161151-60-6P

161151-61-7P 161151-62-8P 161151-63-9P

161151-64-0P 161151-65-1P 161151-66-2P

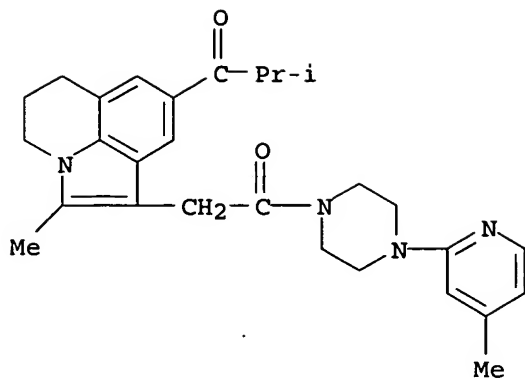
161151-67-3P 161151-68-4P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(synthesis, structure-activity relationships, and pharmacol. evaluation of pyrroloquinolines for therapeutic application in asthma)

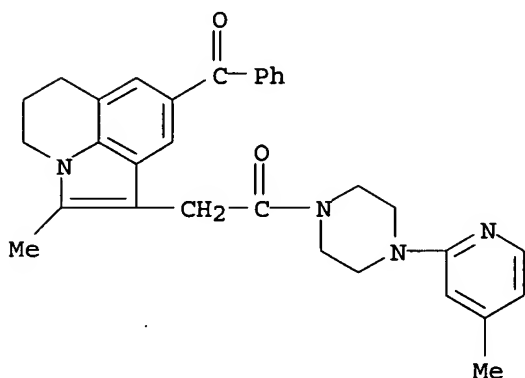
RN 161151-58-2 HCAPLUS

CN Piperazine, 1-[[5,6-dihydro-2-methyl-8-(2-methyl-1-oxopropyl)-4H-pyrrolo[3,2,1-ij]quinolin-1-yl]acetyl]-4-(4-methyl-2-pyridinyl)- (9CI) (CA INDEX NAME)



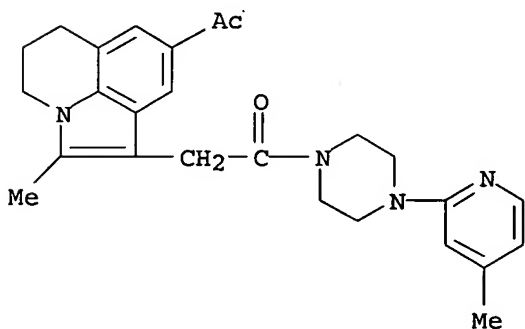
RN 161151-59-3 HCAPLUS

CN Piperazine, 1-[(8-benzoyl-5,6-dihydro-2-methyl-4H-pyrrolo[3,2,1-ij]quinolin-1-yl)acetyl]-4-(4-methyl-2-pyridinyl)- (9CI) (CA INDEX NAME)



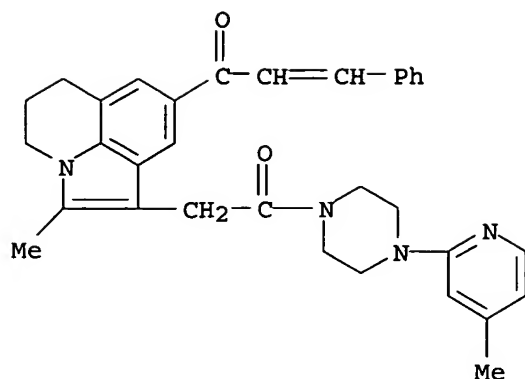
RN 161151-60-6 HCAPLUS

CN Piperazine, 1-[(8-acetyl-5,6-dihydro-2-methyl-4H-pyrrolo[3,2,1-ij]quinolin-1-yl)acetyl]-4-(4-methyl-2-pyridinyl)- (9CI) (CA INDEX NAME)



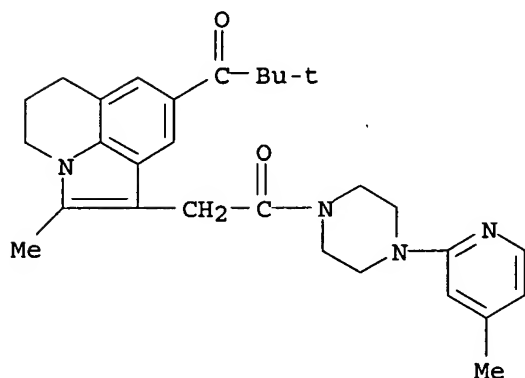
RN 161151-61-7 HCAPLUS

CN Piperazine, 1-[[5,6-dihydro-2-methyl-8-(1-oxo-3-phenyl-2-propenyl)-4H-pyrrolo[3,2,1-ij]quinolin-1-yl]acetyl]-4-(4-methyl-2-pyridinyl)- (9CI) (CA INDEX NAME)



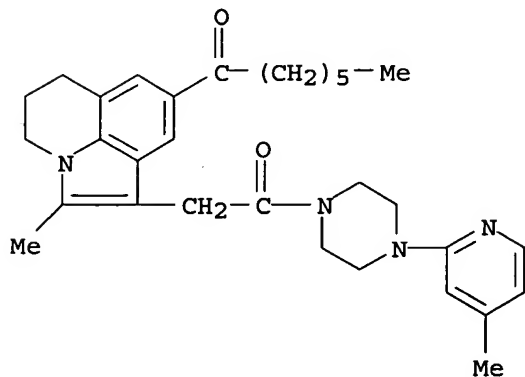
RN 161151-62-8 HCAPLUS

CN Piperazine, 1-[[8-(2,2-dimethyl-1-oxopropyl)-5,6-dihydro-2-methyl-4H-pyrrolo[3,2,1-ij]quinolin-1-yl]acetyl]-4-(4-methyl-2-pyridinyl)- (9CI)  
(CA INDEX NAME)



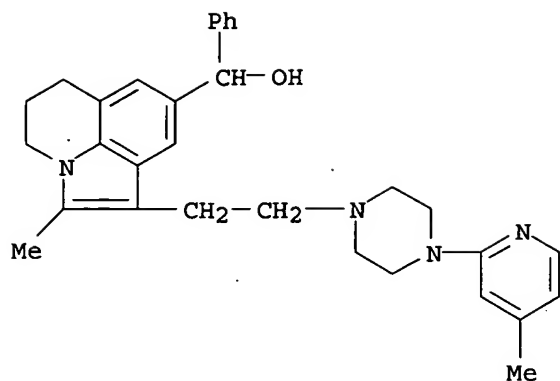
RN 161151-63-9 HCAPLUS

CN Piperazine, 1-[[5,6-dihydro-2-methyl-8-(1-oxoheptyl)-4H-pyrrolo[3,2,1-ij]quinolin-1-yl]acetyl]-4-(4-methyl-2-pyridinyl)- (9CI) (CA INDEX NAME)



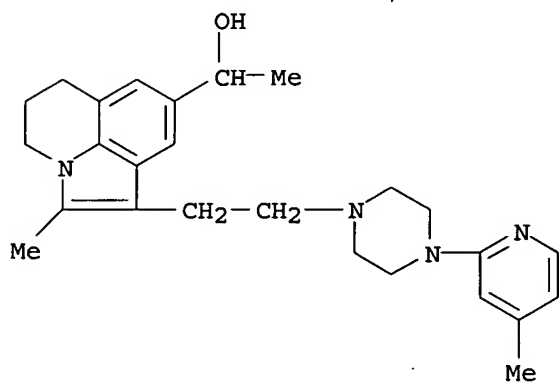
RN 161151-64-0 HCAPLUS

CN 4H-Pyrrolo[3,2,1-ij]quinoline-8-methanol, 5,6-dihydro-2-methyl-1-[2-[4-(4-methyl-2-pyridinyl)-1-piperazinyl]ethyl]-α-phenyl- (9CI) (CA INDEX NAME)



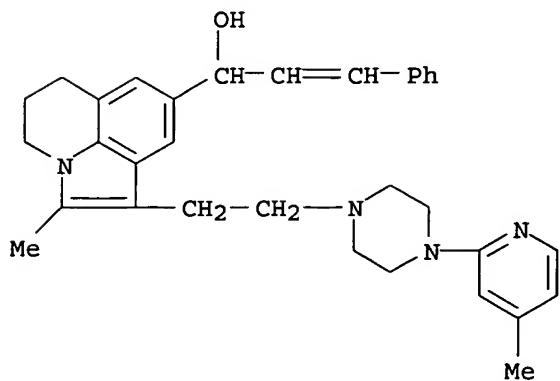
RN 161151-65-1 HCAPLUS

CN 4H-Pyrrolo[3,2,1-ij]quinoline-8-methanol, 5,6-dihydro- $\alpha$ ,2-dimethyl-1-[2-[4-(4-methyl-2-pyridinyl)-1-piperazinyl]ethyl]- (9CI) (CA INDEX NAME)



RN 161151-66-2 HCAPLUS

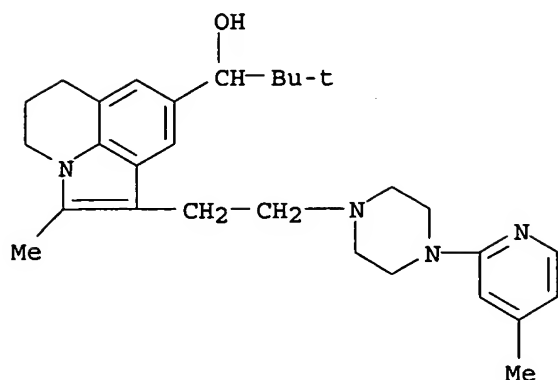
CN 4H-Pyrrolo[3,2,1-ij]quinoline-8-methanol, 5,6-dihydro-2-methyl-1-[2-[4-(4-methyl-2-pyridinyl)-1-piperazinyl]ethyl]- $\alpha$ -(2-phenylethenyl)- (9CI) (CA INDEX NAME)



RN 161151-67-3 HCAPLUS

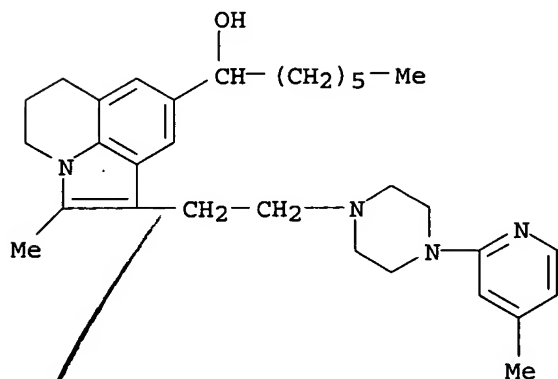
CN 4H-Pyrrolo[3,2,1-ij]quinoline-8-methanol,  $\alpha$ -(1,1-dimethylethyl)-5,6-

dihydro-2-methyl-1-[2-[4-(4-methyl-2-pyridinyl)-1-piperazinyl]ethyl]-  
(9CI) (CA INDEX NAME)



RN 161151-68-4 HCAPLUS

CN 4H-Pyrrolo[3,2,1-ij]quinoline-8-methanol,  $\alpha$ -hexyl-5,6-dihydro-2-methyl-1-[2-[4-(4-methyl-2-pyridinyl)-1-piperazinyl]ethyl]- (9CI) (CA INDEX NAME)



L13 ANSWER 8 OF 10 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1993:539255 HCAPLUS

DN 119:139255

ED Entered STN: 02 Oct 1993

TI Preparation of annellated  $\alpha$ -(piperazinylakyl)indoles and related compounds as drugs

IN Jasserand, Daniel; Paris, Dominique; Demonchaux, Patrice; Cottin, Michel; Floc'h, Francois; Dupassieux, Pierre; White, Richard

PA Kali-Chemie Pharma GmbH, Germany

SO Ger. Offen., 52 pp.

CODEN: GWXXBX

DT Patent

LA German

IC ICM C07D471-06

ICS C07D487-06; C07D498-06; C07D513-06; A61K031-495; A61K031-44; A61K031-535; A61K031-54; A61K031-47

ICI C07D209-00, C07D227-00, C07D265-00, C07D279-00; A61K031-495, A61K031-44, A61K031-535, A61K031-54, A61K031-47

CC 28-16 (Heterocyclic Compounds (More Than One Hetero Atom))

Section cross-reference(s): 1, 63



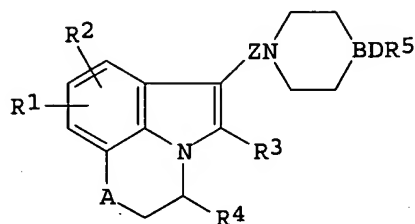
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PI	DE 4128015	A1	19930225	DE 1991-4128015	19910823 <--
	IL 102652	A1	19960723	IL 1992-102652	19920727 <--
	EP 529452	A2	19930303	EP 1992-113964	19920817 <--
	EP 529452	A3	19930421		
	EP 529452	B1	19981111		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE				
	HU 64762	A2	19940228	HU 1992-2659	19920817 <--
	AT 173260	E	19981115	AT 1992-113964	19920817 <--
	ES 2126581	T3	19990401	ES 1992-113964	19920817 <--
	ZA 9206275	A	19930302	ZA 1992-6275	19920820 <--
	CA 2076553	AA	19930224	CA 1992-2076553	19920821 <--
	NO 9203282	A	19930224	NO 1992-3282	19920821 <--
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	AU 657557	B2	19950316		
	US 5324725	A	19940628	US 1992-933476	19920821 <--
	CZ 281568	B6	19961113	CZ 1992-2585	19920821 <--
	RU 2083580	C1	19970710	RU 1992-5052549	19920821 <--
	CN 1069732	A	19930310	CN 1992-109697	19920822 <--
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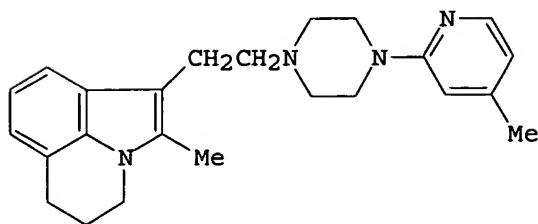
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PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
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	ICI	C07D209-00, C07D227-00, C07D265-00, C07D279-00; A61K031-495, A61K031-44, A61K031-535, A61K031-54, A61K031-47

OS MARPAT 119:139255  
GI



I



II

AB Title compds. [I; R1 = H, alkoxy, alkylthio, OH, halo, CF3, NO2, amino, (hydroxy)alkyl, (substituted) phenylalkyl, cycloalkyl, cycloalkylalkyl, alkenyl, alkanoyl, alkanoyloxy, alkanoylamino, (substituted) PhCO, PhCO2, PhCONH, cinnamoyl, cinnamoyloxy, cinnamoylamino; R2 = H, halo, alkyl,

alkoxy; R3, R4 = H, (hydroxy)alkyl, alkenyl, cycloalkyl, cycloalkylalkyl, (substituted) Ph, phenylalkyl, OH; R5 = (substituted) pyridyl, phenyl; A = O, S, bond, (alkyl-substituted) alkylene; Z = (alkyl- or HO-substituted) alkylene; B = N, CH; D = bond, CO; with provisos], were prepared Thus, 1-amino-1,2,3,4-tetrahydroquinoline (preparation given) was refluxed with Et 3-acetylpropionate in HOAC/HNHCl to give Et 5,6-dihydro-2-methyl-4H-pyrrolo(3,2,1-ij)quinoline-1-acetate, which was reduced with LiAlH4 to give the hydroxyethyl derivative This was treated with PBr3 in CHCl3 to give the bromoethyl derivative, which was heated with 1-(4-methylpyridin-2-yl)piperazine, KI, and Et3N in DMF at reflux to give title compound II. II at 10<sup>-5</sup> M gave 97% inhibition of platelet activating factor-induced aggregation of rabbit blood platelets, and at 2 + 10<sup>-5</sup> M orally in rats gave 98% inhibition of passive cutaneous anaphylaxis. Tablets were prepared containing II.

ST piperazinylalkylpyrroloquinoline prepn drug; PAF antagonist  
 piperazinylalkylpyrroloquinoline; antihistamine  
 piperazinylalkylpyrroloquinoline; antiasthmatic  
 piperazinylalkylpyrroloquinoline; antiinflammatory  
 piperazinylalkylpyrroloquinoline; pyrroloquinoline piperazinylalkyl prepn drug; indole piperazinylalkyl prepn drug

IT Allergy inhibitors  
 Inflammation inhibitors  
 (annellated (piperazinylalkyl)indoles)

IT Antihistaminics  
 (antagonists, annellated (piperazinylalkyl)indoles)

IT Bronchodilators  
 (antiasthmatics, antagonists, annellated (piperazinylalkyl)indoles)

IT 65154-06-5, Platelet activating factor  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (antagonists, annellated (piperazinylalkyl)indoles)

IT 148490-36-2P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (preparation and reaction of, in preparation of  
 piperazinoalkylpyrroloquinoline  
 derivative allergy inhibitor and antiinflammatory)

IT 148468-52-4P 148468-53-5P 148468-54-6P 148468-55-7P  
 148468-56-8P 148468-57-9P 148468-58-0P 148468-59-1P  
 148468-60-4P 148468-61-5P 148468-62-6P 148468-63-7P  
 148468-64-8P 148468-65-9P 148468-66-0P  
 148468-67-1P 148468-68-2P 148468-69-3P  
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 149542-54-1P 149902-01-2P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of, as allergy inhibitor and antiinflammatory)

IT 83260-97-3P 148490-45-3P 148490-46-4P 148490-47-5P 148490-48-6P  
 148490-49-7P 148490-50-0P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of, as intermediate (piperazinylalkyl)pyrroloquinoline allergy  
 inhibitor and antiinflammatory)

IT 5825-44-5P 5825-45-6P, 1-Amino-1,2,3,4-tetrahydroquinoline  
 108248-90-4P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of, as intermediate for (piperazinoalkyl)pyrroloquinoline  
 allergy and antiinflammatory)

IT 148490-37-3P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of, as intermediate for (piperazinoalkyl)pyrroloquinoline  
 allergy inhibitor and antiinflammatory)

IT 24005-23-0P, 1,2,3,4-Tetrahydro-2-phenylquinoline 40624-66-6P,  
 1,2-Dihydro-2-phenylquinoline 105078-29-3P 148490-38-4P 148490-39-5P  
 148490-40-8P 148490-41-9P 148490-42-0P 148490-43-1P 148490-44-2P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of, as intermediate for (piperazinylalkyl)pyrroloquinoline  
 allergy inhibitor and antiinflammatory)

IT 149542-65-4P 149542-70-1P 149542-76-7P 149542-82-5P 149542-84-7P  
 149542-86-9P 149542-87-0P 149542-88-1P 149542-93-8P 149573-40-0P  
 149573-41-1P 149902-02-3P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of, as intermediate for allergy inhibitor and antiinflammatory)

IT 54282-74-5P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of, as intermediate for piperazinoalkylpyrroloquinoline allergy  
 inhibitor and antiinflammatory)

IT 5965-53-7P 149542-71-2P 149542-72-3P 149542-73-4P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of, as intermediate for piperazinylalkylpyrroloquinoline allergy  
 inhibitor and antiinflammatory)

IT 3080-99-7P 39093-62-4P 51511-34-3P 149542-63-2P 149542-64-3P  
 149573-39-7P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of, as intermediate for piperazinylalkylpyrrolobenzothiazine  
 allergy inhibitor and antiinflammatory)

IT 120-15-0P, 1,2,3,4-Tetrahydro-6-methoxyquinoline 4491-33-2P, Ethyl  
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 149542-79-0P 149542-80-3P 149542-81-4P 149542-83-6P 149542-85-8P  
 149542-89-2P 149542-90-5P 149542-91-6P 149542-92-7P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of, as intermediate for piperazinylalkylpyrroloquinoline  
 allergy inhibitor and antiinflammatory)

IT 148490-14-6P 148490-15-7P 149542-56-3P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of, as intermediate for piperazinylalkylpyrroloquinoline allergy  
 inhibitor and antiinflammatory)

IT 4926-28-7P, 2-Bromo-4-methylpyridine  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of, as intermediate for piperazinylalkylpyrroloquinoline  
 derivative  
 allergy inhibitor and antiinflammatory)

IT 59084-16-1P, 1-Acetyl piperidine-4-carbonyl chloride  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of, as intermediate for piperidinylalkylpyrroloquinoline  
 allergy inhibitor and antiinflammatory)

IT 539-88-8, Ethyl 3-acetylpropionate 635-46-1, 1,2,3,4-Tetrahydroquinoline

34803-67-3

RL: RCT (Reactant); RACT (Reactant or reagent)

(reaction of, in preparation of of piperazinylalkylpyrroloquinoline allergy inhibitor and antiinflammatory)

IT 498-94-2, Piperidine-4-carboxylic acid

RL: RCT (Reactant); RACT (Reactant or reagent)

(reaction of, in preparation of piperadinylalkylpyrroloquinoline allergy inhibitor and antiinflammatory)

IT 79-30-1

RL: RCT (Reactant); RACT (Reactant or reagent)

(reaction of, in preparation of piperazinoalkylpyrroloquinoline derivative allergy inhibitor and antiinflammatory)

IT 96220-47-2

RL: RCT (Reactant); RACT (Reactant or reagent)

(reaction of, in preparation of piperazinylalkylpyrrolbenzothiazine allergy inhibitor and antiinflammatory)

IT 2969-81-5, Ethyl-4-bromobutyrate

RL: RCT (Reactant); RACT (Reactant or reagent)

(reaction of, in preparation of piperazinylalkylpyrroloquinole allergy inhibitor and antiinflammatory)

IT 91-22-5, Quinoline, reactions 91-63-4, 2-Methylquinoline 93-10-7,  
 Quinoline-2-carboxylic acid 98-88-4, Benzoyl chloride 328-50-7,  
 2-Ketoglutaric acid 431-03-8, Butane-2,3-dione 591-51-5, Phenyllithium  
 3153-44-4, 3-(4-Methoxybenzoyl)propionic acid 5263-87-6,  
 6-Methoxyquinoline 13889-98-0, 1-Acetylpiperazine

RL: RCT (Reactant); RACT (Reactant or reagent)

(reaction of, in preparation of piperazinylalkylpyrroloquinoline allergy inhibitor and antiinflammatory)

IT 462-06-6, Fluorobenzene

RL: RCT (Reactant); RACT (Reactant or reagent)

(reaction of, in preparation of piperidinylalkylpyrroloquinoline derivative allergy inhibitor and antiinflammatory)

IT 148468-56-8P 148468-63-7P 148468-64-8P

148468-65-9P 148468-67-1P 148468-68-2P

148468-69-3P 148468-76-2P 148489-96-7P

148489-97-8P 148490-00-0P 148490-10-2P

148490-12-4P 148490-13-5P 148490-17-9P

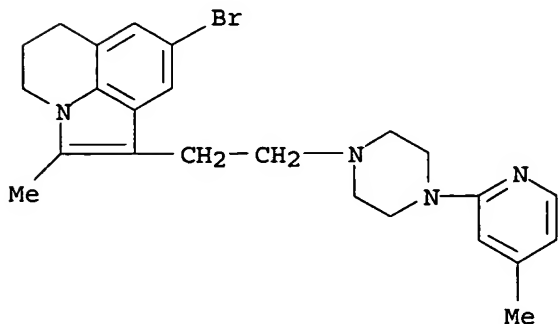
148490-22-6P 149542-51-8P

RL: SPN (Synthetic preparation); PREP (Preparation)

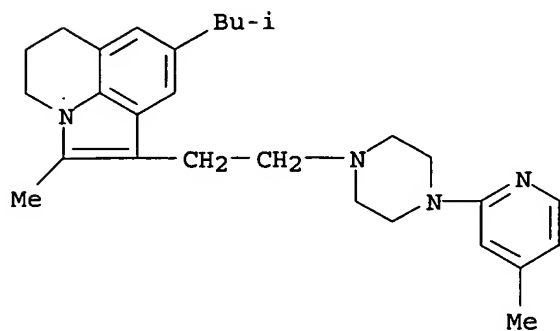
(preparation of, as allergy inhibitor and antiinflammatory)

RN 148468-56-8 HCAPLUS

CN 4H-Pyrrolo[3,2,1-ij]quinoline, 8-bromo-5,6-dihydro-2-methyl-1-[2-[4-(4-methyl-2-pyridinyl)-1-piperazinyl]ethyl]-, trihydrochloride (9CI) (CA INDEX NAME)



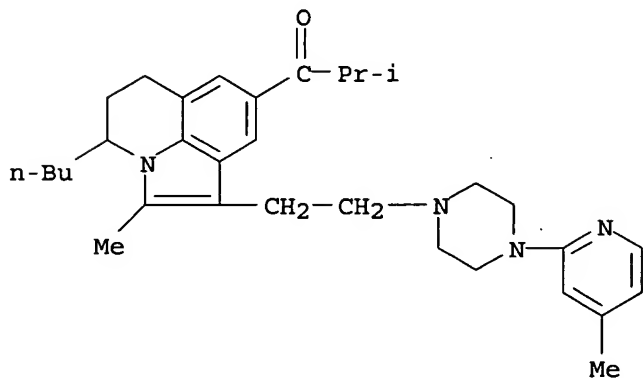
RN 148468-63-7 HCAPLUS

CN 4H-Pyrrolo[3,2,1-ij]quinoline, 5,6-dihydro-2-methyl-8-(2-methylpropyl)-1-[2-[4-(4-methyl-2-pyridinyl)-1-piperazinyl]ethyl]-, dihydrochloride (9CI)  
(CA INDEX NAME)

●2 HCl

RN 148468-64-8 HCAPLUS

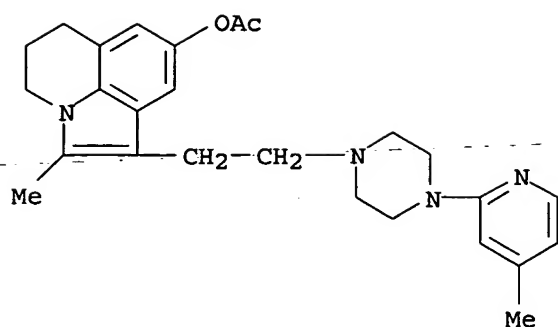
CN 1-Propanone, 1-[4-butyl-5,6-dihydro-2-methyl-1-[2-[4-(4-methyl-2-pyridinyl)-1-piperazinyl]ethyl]-4H-pyrrolo[3,2,1-ij]quinolin-8-yl]-2-methyl-, hydrochloride (10:19) (9CI) (CA INDEX NAME)



●19/10 HCl

RN 148468-65-9 HCAPLUS

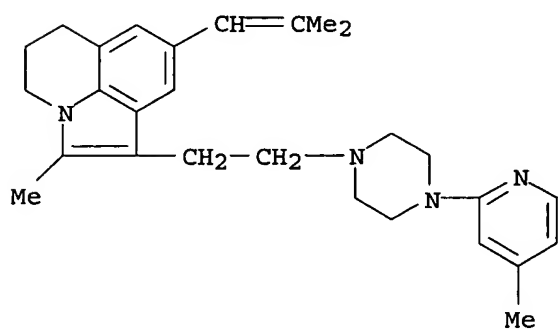
CN 4H-Pyrrolo[3,2,1-ij]quinolin-8-ol, 5,6-dihydro-2-methyl-1-[2-[4-(4-methyl-2-pyridinyl)-1-piperazinyl]ethyl]-, acetate (ester), dihydrochloride (9CI)  
(CA INDEX NAME)



●2 HCl

RN 148468-67-1 HCAPLUS

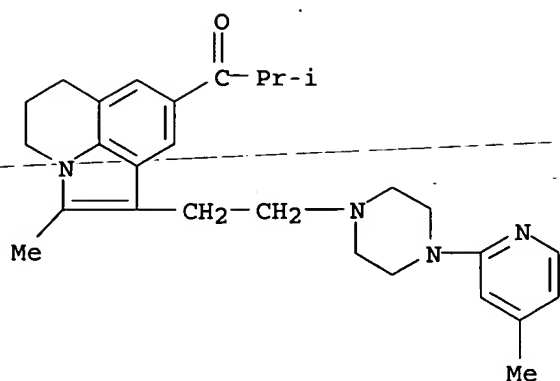
CN 4H-Pyrrolo[3,2,1-ij]quinoline, 5,6-dihydro-2-methyl-8-(2-methyl-1-propenyl)-1-[2-[4-(4-methyl-2-pyridinyl)-1-piperazinyl]ethyl]-, hydrochloride (10:19) (9CI) (CA INDEX NAME)



●19/10 HCl

RN 148468-68-2 HCAPLUS

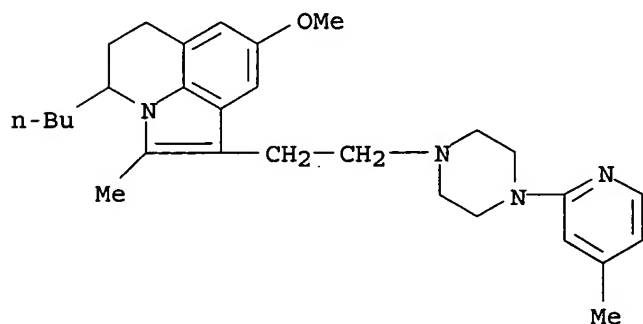
CN 1-Propanone, 1-[5,6-dihydro-2-methyl-1-[2-[4-(4-methyl-2-pyridinyl)-1-piperazinyl]ethyl]-4H-pyrrolo[3,2,1-ij]quinolin-8-yl]-2-methyl-, dihydrochloride (9CI) (CA INDEX NAME)



●2 HCl

RN 148468-69-3 HCAPLUS

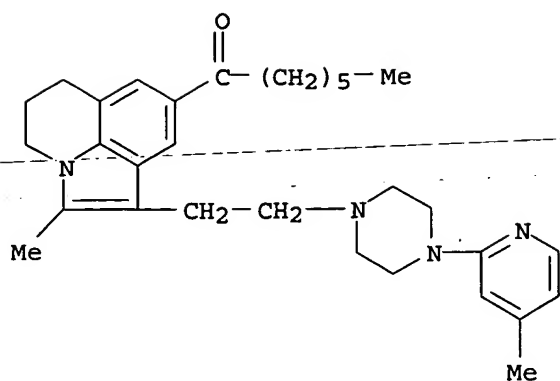
CN 4H-Pyrrolo[3,2,1-ij]quinoline, 4-butyl-5,6-dihydro-8-methoxy-2-methyl-1-[2-[4-(4-methyl-2-pyridinyl)-1-piperazinyl]ethyl]-, dihydrochloride (9CI)  
(CA INDEX NAME)



●2 HCl

RN 148468-76-2 HCAPLUS

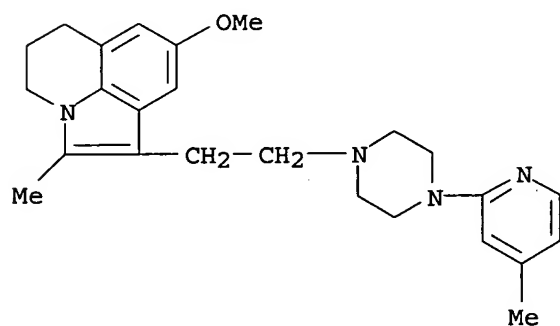
CN 1-Heptanone, 1-[5,6-dihydro-2-methyl-1-[2-[4-(4-methyl-2-pyridinyl)-1-piperazinyl]ethyl]-4H-pyrrolo[3,2,1-ij]quinolin-8-yl]-, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

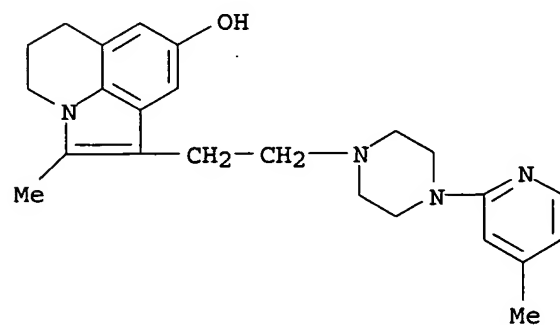
RN 148489-96-7 HCAPLUS

CN 4H-Pyrrolo[3,2,1-ij]quinoline, 5,6-dihydro-8-methoxy-2-methyl-1-[2-[4-(4-methyl-2-pyridinyl)-1-piperazinyl]ethyl]- (9CI) (CA INDEX NAME)



RN 148489-97-8 HCAPLUS

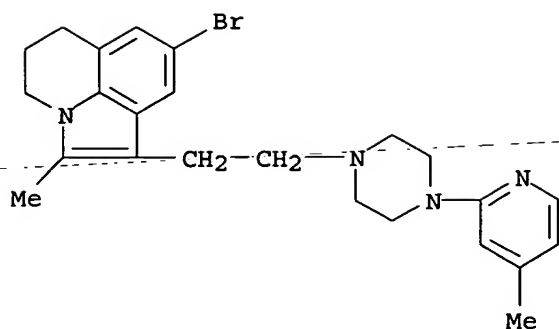
CN 4H-Pyrrolo[3,2,1-ij]quinolin-8-ol, 5,6-dihydro-2-methyl-1-[2-[4-(4-methyl-2-pyridinyl)-1-piperazinyl]ethyl]- (9CI) (CA INDEX NAME)



RN 148490-00-0 HCAPLUS

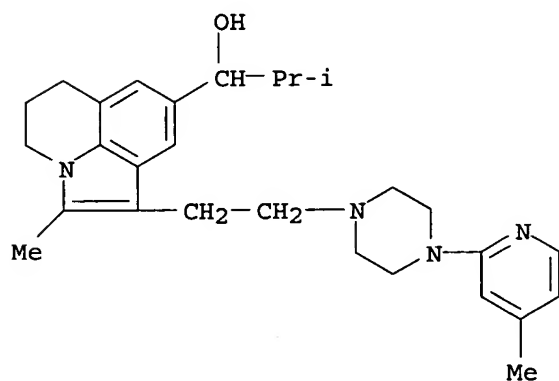
CN 4H-Pyrrolo[3,2,1-ij]quinoline, 8-bromo-5,6-dihydro-2-methyl-1-[2-[4-(4-methyl-2-pyridinyl)-1-piperazinyl]ethyl]- (9CI) (CA INDEX NAME)





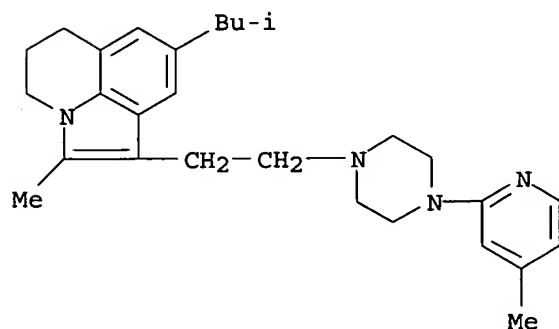
RN 148490-10-2 HCAPLUS

CN 4H-Pyrrolo[3,2,1-ij]quinoline-8-methanol, 5,6-dihydro-2-methyl- $\alpha$ -(1-methylethyl)-1-[2-[4-(4-methyl-2-pyridinyl)-1-piperazinyl]ethyl]- (9CI)  
(CA INDEX NAME)



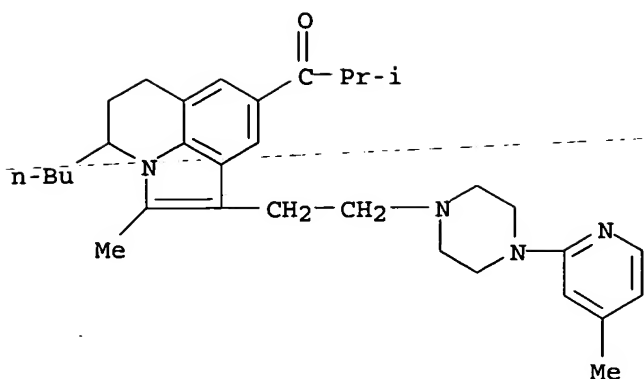
RN 148490-12-4 HCAPLUS

CN 4H-Pyrrolo[3,2,1-ij]quinoline, 5,6-dihydro-2-methyl-8-(2-methylpropyl)-1-[2-[4-(4-methyl-2-pyridinyl)-1-piperazinyl]ethyl]- (9CI) (CA INDEX NAME)



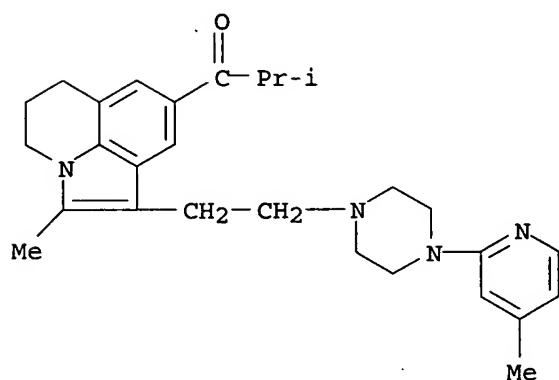
RN 148490-13-5 HCAPLUS

CN 1-Propanone, 1-[4-butyl-5,6-dihydro-2-methyl-1-[2-[4-(4-methyl-2-pyridinyl)-1-piperazinyl]ethyl]-4H-pyrrolo[3,2,1-ij]quinolin-8-yl]-2-methyl- (9CI) (CA INDEX NAME)



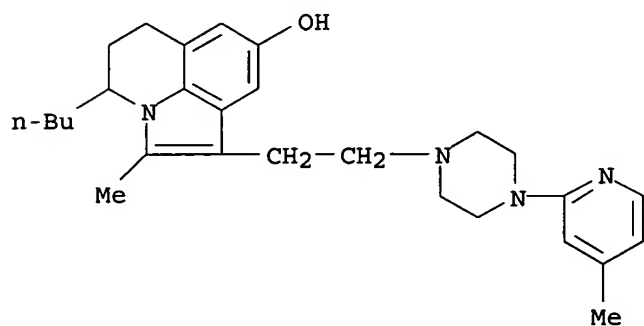
RN 148490-17-9 HCAPLUS

CN 1-Propanone, 1-[5,6-dihydro-2-methyl-1-[2-[4-(4-methyl-2-pyridinyl)-1-piperazinyl]ethyl]-4H-pyrrolo[3,2,1-ij]quinolin-8-yl]-2-methyl- (9CI) (CA INDEX NAME)



RN 148490-22-6 HCAPLUS

CN 4H-Pyrrolo[3,2,1-ij]quinolin-8-ol, 4-butyl-5,6-dihydro-2-methyl-1-[2-[4-(4-methyl-2-pyridinyl)-1-piperazinyl]ethyl]- (9CI) (CA INDEX NAME)

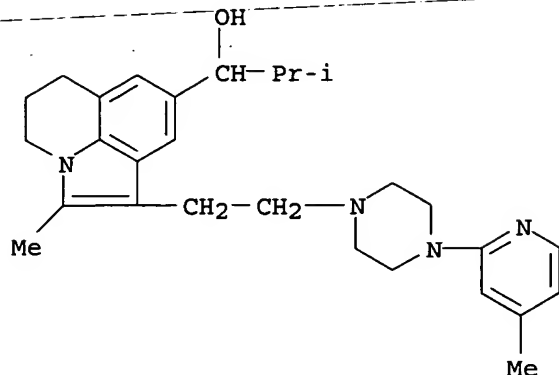


RN 149542-51-8 HCAPLUS

CN 4H-Pyrrolo[3,2,1-ij]quinoline-8-methanol, 5,6-dihydro-2-methyl-α-(1-methylethyl)-1-[2-[4-(4-methyl-2-pyridinyl)-1-piperazinyl]ethyl]-, (2E)-2-butenedioate (5:6) (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 148490-10-2

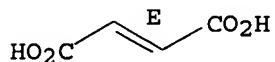
CMFC28H38N4O

CM 2

CRN 110-17-8

CMF C4 H4 O4

Double bond geometry as shown.

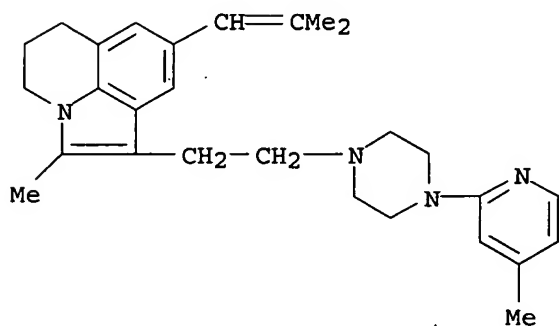


IT 148490-16-8P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of, as intermediate for piperazinylalkylpyrroloquinoline  
allergy inhibitor and antiinflammatory)

RN 148490-16-8 HCAPLUS

CN 4H-Pyrrolo[3,2,1-ij]quinoline, 5,6-dihydro-2-methyl-8-(2-methyl-1-propenyl)-1-[2-[4-(4-methyl-2-pyridinyl)-1-piperazinyl]ethyl]- (9CI) (CA INDEX NAME)

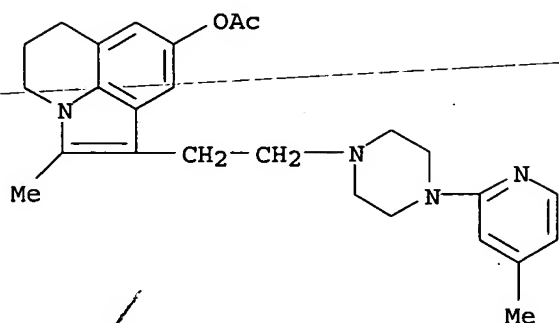


IT 148490-14-6P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of, as intermediate for piperazinylalkylpyrroloquinoline allergy  
inhibitor and antiinflammatory)

RN 148490-14-6 HCAPLUS

CN 4H-Pyrrolo[3,2,1-ij]quinolin-8-ol, 5,6-dihydro-2-methyl-1-[2-[4-(4-methyl-2-pyridinyl)-1-piperazinyl]ethyl]-, acetate (ester) (9CI) (CA INDEX NAME)



✓ L13 ANSWER 9 OF 10 HCAPLUS COPYRIGHT 2004 ACS on STN  
 AN 1988:493031 HCAPLUS  
 DN 109:93031  
 ED Entered STN: 17 Sep 1988  
 TI Improved preparation of spiropyrrolidinepyrrolobenzoxazinetriones useful as aldose reductase inhibitors  
 IN Masuzawa, Kuniyoshi; Okamura, Kyuya; Fujimori, Shizuyoshi; Kinoshita, Susumu; Matsukubo, Hiroshi  
 PA Kyorin Pharmaceutical Co., Ltd., Japan  
 SO Eur. Pat. Appl., 14 pp.  
 CODEN: EPXXDW  
 DT Patent  
 LA English  
 IC ICM C07D498-20  
 ICS C07D471-20; C07D513-20; A61K031-535; A61K031-435; A61K031-54  
 ICI C07D498-20, C07D265-00, C07D209-00  
 CC 28-13 (Heterocyclic Compounds (More Than One Hetero Atom))  
 Section cross-reference(s): 1

FAN.CNT 1

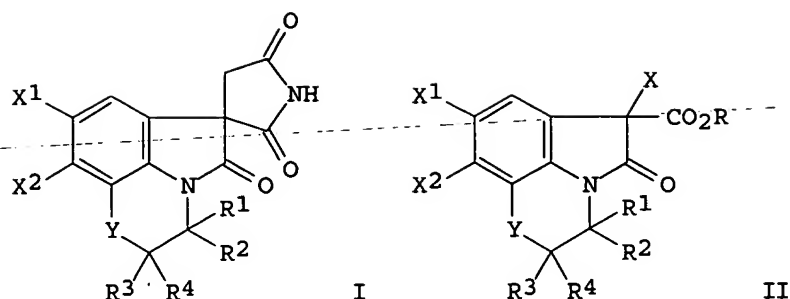
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 254149	A2	19880127	EP 1987-109949	19870709 <--
	EP 254149	A3	19890830		
	R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, NL, SE				
	JP 63017885	A2	19880125	JP 1986-161789	19860711 <--
	AU 8775349	A1	19880114	AU 1987-75349	19870708 <--
	AU 596851	B2	19900517		
	CA 1261326	A1	19890926	CA 1987-541568	19870708 <--
	DK 8703588	A	19880112	DK 1987-3588	19870710 <--
	US 4749789	A	19880607	US 1987-72004	19870710 <--
	HU 46325	A2	19881028	HU 1987-3170	19870710 <--
	HU 197012	B	19890228		
PRAI	JP 1986-161789		19860711	<--	

CLASS

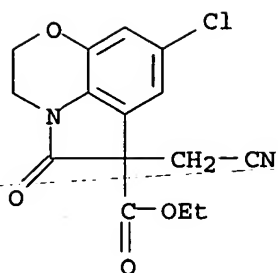
PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
EP 254149	ICM	C07D498-20
	ICS	C07D471-20; C07D513-20; A61K031-535; A61K031-435; A61K031-54
	ICI	C07D498-20, C07D265-00, C07D209-00

OS CASREACT 109:93031; MARPAT 109:93031

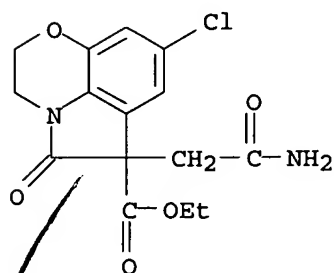
GI



- AB The title compds. (I; R1-R4 = H, alkyl; 2 of R1-R4 = atoms to complete benzene rings; X1, X2 = H, halo, alkyl, alkoxy; Y = CH2, O, S), known aldose reductase inhibitors, were prepared by improved methods from heterocycloindolones II (R = alkyl, X = CH2CN, CH2CONH2).
- 1-Chloro-3,4-dihydro-2H-1,4-benzoxazine in HOAc was refluxed with di-Et ketomalonate to give Et 8-chloro-2,3-dihydro-6-hydroxy-5-oxopyrrolo[1,2,3-d,e]-1,4-benzoxazine-6-carboxylate, which was converted to Et 6-carbamoylmethyl-8-chloro-2,3-dihydro-5-oxopyrrolo[1,2,3-d,e]-1,4-benzoxazine-6-carboxylate (III) in 5 steps. III in EtOH was treated with 0.5 M aqueous NaOH to give 8'-chloro-2',3'-dihydrospiro[pyrrolidine-3,6'-(5'H)-pyrrolo[1,2,3-d,e][1,4]benzoxazine]-2,5,5'-trione.
- ST spiropyrrolidinepyrrolobenzoxazinetrione prepn aldose reductase inhibitor; benzoxazinetrione spiropyrrolidinepyrrolo prepn aldose reductase inhibitor
- IT Ring closure and formation  
(of carbamoylmethylpyrrole carboxylate derivs.,  
spiropyrrolidinepyrroletriones derivs. by)
- IT 107-14-2, Chloroacetonitrile 590-17-0, Bromoacetonitrile  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(alkylation by, of oxopyrrolobenzoxazine carboxylate)
- IT 609-09-6, Diethyl ketomalonate  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(cyclocondensation of, with benzoxazine derivative)
- IT 113770-21-1  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(cyclocondensation of, with ketomalonate)
- IT 9028-31-3  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(inhibitors of, spiropyrrolidinepyrrolobenzoxazinetriones as)
- IT 99434-90-9P  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(preparation of, as aldose reductase inhibitor)
- IT 99434-90-9P 113770-16-4P 113770-17-5P 113770-18-6P  
113770-19-7P 113770-20-0P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of, as aldose reductase inhibitor intermediate)
- IT 113770-19-7P 113770-20-0P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of, as aldose reductase inhibitor intermediate)
- RN 113770-19-7 HCAPLUS
- CN Pyrrolo[1,2,3-de]-1,4-benzoxazine-6-carboxylic acid, 8-chloro-6-(cyanomethyl)-2,3,5,6-tetrahydro-5-oxo-, ethyl ester (9CI) (CA INDEX NAME)



RN 113770-20-0 HCAPLUS  
 CN Pyrrolo[1,2,3-de]-1,4-benzoxazine-6-carboxylic acid, 6-(2-amino-2-oxoethyl)-8-chloro-2,3,5,6-tetrahydro-5-oxo-, ethyl ester (9CI) (CA INDEX NAME)



✓ L13 ANSWER 10 OF 10 HCAPLUS COPYRIGHT 2004 ACS on STN  
 AN 1974:520418 HCAPLUS  
 DN 81:120418  
 ED Entered STN: 12 May 1984  
 TI 5,6-Dihydro-4H-pyrrolo[3,2,1-i,j]quinolines  
 AU Steck, Edgar A.; Fletcher, Lynn T.; Carabateas, Clarissa D.  
 CS Sterling-Winthrop Res. Inst., Rensselaer, NY, USA  
 SO Journal of Heterocyclic Chemistry (1974), 11(3), 387-93  
 CODEN: JHTCAD; ISSN: 0022-152X  
 DT Journal  
 LA English  
 CC 27-18 (Heterocyclic Compounds (One Hetero Atom))  
 GI For diagram(s), see printed CA Issue.  
 AB The title compds. (I, R = H, Ph, CO<sub>2</sub>Et, C<sub>6</sub>H<sub>4</sub>OMe-p, CH<sub>2</sub>CH<sub>2</sub>NH<sub>2</sub>; R<sub>2</sub> = CO<sub>2</sub>Me, CO<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>NMe<sub>2</sub>, CONH<sub>2</sub>, CONEt<sub>2</sub>, CONCH<sub>2</sub>CH<sub>2</sub>NEt<sub>2</sub>, CSNHCH<sub>2</sub>CH<sub>2</sub>NEt<sub>2</sub>, CSNHCMech<sub>2</sub>OH, Ph, C<sub>6</sub>H<sub>4</sub>OMe-p, C<sub>6</sub>H<sub>4</sub>OH-p, Me; R<sub>2</sub> = H, Cl) were prepared by a Fischer indole synthesis of the hydrazone II, prepared from 1-amino-1,2,3,4-tetrahydroquinoline or its 8-chloro derivative and RCH<sub>2</sub>COR<sub>1</sub>.  
 ST Fischer indole synthesis pyrroloquinoline; quinoline amino ketone reaction; ketone aminoquinoline reaction  
 IT Fischer indole synthesis  
 (with 1-amino-1,2,3,4-tetrahydroquinoline hydrazones)  
 IT 5825-45-6  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (Fischer indole synthesis on hydrazones from)  
 IT 18326-86-8P 51282-96-3P 54282-56-3P 54282-57-4P 54282-58-5P  
 54282-59-6P 54282-60-9P 54282-61-0P 54282-62-1P 54282-63-2P  
 54282-64-3P 54282-65-4P 54282-66-5P 54282-67-6P 54282-69-8P  
 54282-70-1P 54282-71-2P 54282-73-4P 54282-74-5P 54282-75-6P  
 54282-76-7P 54282-77-8P 54282-78-9P 54282-79-0P 54282-80-3P  
 54282-81-4P 54282-82-5P 54282-83-6P 54282-84-7P

54282-85-8P 54282-86-9P 54282-87-0P

54282-88-1P 54282-89-2P 54282-90-5P 54282-92-7P

54282-93-8P 54282-94-9P 54282-95-0P 54282-96-1P 54282-97-2P

54282-98-3P 54282-99-4P 54283-00-0P 54283-01-1P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

IT 105-14-6

RL: RCT (Reactant); RACT (Reactant or reagent)

(reaction of, with aminochlorotetrahydroquinoline)

IT 123-76-2 141-97-9 328-50-7 3197-25-9 6346-09-4 28030-16-2

54282-91-6

RL: RCT (Reactant); RACT (Reactant or reagent)

(reaction of, with aminotetrahydroquinoline)

IT 28216-35-5

RL: RCT (Reactant); RACT (Reactant or reagent)

(reaction of, with pyrroloquinoline derivative)

IT 54282-68-7

RL: RCT (Reactant); RACT (Reactant or reagent)

(reaction of, with pyruvic acid)

IT 5891-21-4

RL: RCT (Reactant); RACT (Reactant or reagent)

(reaction of, with thiourea and aminotetrahydroquinoline)

IT 127-17-3, reactions

RL: RCT (Reactant); RACT (Reactant or reagent)

(with aminochlorotetrahydroquinoline)

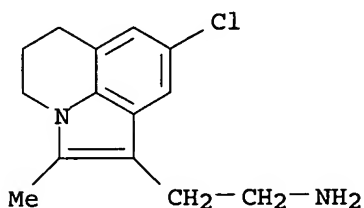
IT 54282-83-6P 54282-84-7P 54282-85-8P

54282-86-9P 54282-87-0P 54282-88-1P

54282-89-2P

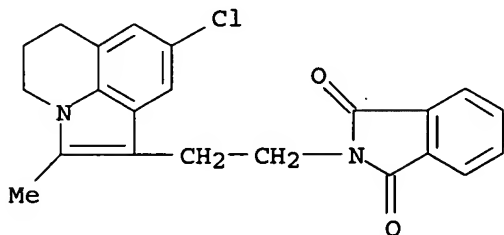
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

RN 54282-83-6 HCAPLUS

CN 4H-Pyrrolo[3,2,1-ij]quinoline-1-ethanamine, 8-chloro-5,6-dihydro-2-methyl-  
(9CI) (CA INDEX NAME)

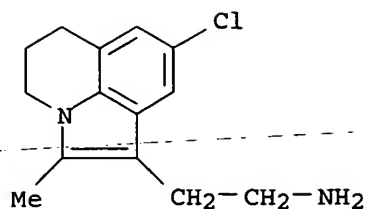
RN 54282-84-7 HCAPLUS

CN 1H-Isoindole-1,3(2H)-dione, 2-[2-(8-chloro-5,6-dihydro-2-methyl-4H-pyrrolo[3,2,1-ij]quinolin-1-yl)ethyl]- (9CI) (CA INDEX NAME)



RN 54282-85-8 HCAPLUS

CN 4H-Pyrrolo[3,2,1-ij]quinoline-1-ethanamine, 8-chloro-5,6-dihydro-2-methyl-  
, hydrochloride (9CI) (CA INDEX NAME)



●x HCl

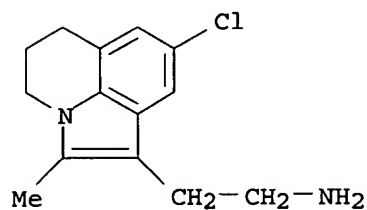
RN 54282-86-9 HCAPLUS

CN 4H-Pyrrolo[3,2,1-ij]quinoline-1-ethanamine, 8-chloro-5,6-dihydro-2-methyl-, 2-hydroxy-1,2,3-propanetricarboxylate (2:1) (9CI) (CA INDEX NAME)

CM 1

CRN 54282-83-6

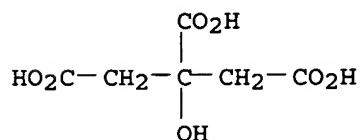
CMF C14 H17 Cl N2



CM 2

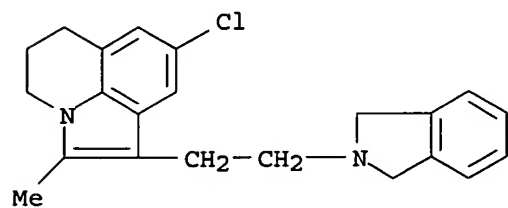
CRN 77-92-9

CMF C6 H8 O7



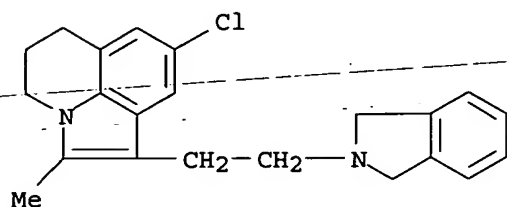
RN 54282-87-0 HCAPLUS

CN 4H-Pyrrolo[3,2,1-ij]quinoline, 8-chloro-1-[2-(1,3-dihydro-2H-isoindol-2-yl)ethyl]-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)



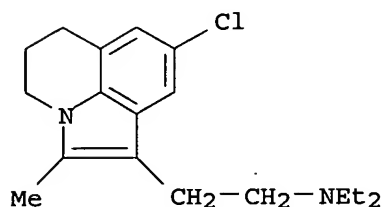


RN 54282-88-1 HCAPLUS  
 CN 4H-Pyrrolo[3,2,1-ij]quinoline, 8-chloro-1-[2-(1,3-dihydro-2H-isoindol-2-yl)ethyl]-5,6-dihydro-2-methyl-, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

RN 54282-89-2 HCAPLUS  
 CN 4H-Pyrrolo[3,2,1-ij]quinoline-1-ethanamine, 8-chloro-N,N-diethyl-5,6-dihydro-2-methyl-, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

=> fil uspatall

FILE 'USPATFULL' ENTERED AT 06:36:01 ON 26 OCT 2004

CA INDEXING COPYRIGHT (C) 2004 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'USPAT2' ENTERED AT 06:36:01 ON 26 OCT 2004

CA INDEXING COPYRIGHT (C) 2004 AMERICAN CHEMICAL SOCIETY (ACS)

=> => d l15 bib abs hitstr

L15 ANSWER 1 OF 1 USPATFULL on STN

AN 2004:139421 USPATFULL

TI Novel fused indazoles and indoles and their use for the treatment of glaucoma

IN May, Jesse A., Fort Worth, TX, UNITED STATES

Dantanarayana, Anura P., Fort Worth, TX, UNITED STATES

PI US 2004106597 A1 20040603

AI US 2003-721204 A1 20031125 (10)

RLI Continuation of Ser. No. WO 2002-US17114, filed on 30 May 2002, PENDING

PRAI US 2001-295428P 20010601 (60)

DT Utility

FS APPLICATION

LREP KILYK & BOWERSOX, P.L.L.C., 53 A EAST LEE STREET, WARRENTON, VA, 20186

CLMN Number of Claims: 19

ECL Exemplary Claim: 1

DRWN No Drawings

LN.CNT 924

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Novel fused indazoles and indoles are disclosed. Also disclosed are methods for the lowering and controlling of normal or elevated intraocular pressure as well as a method for the treatment of glaucoma using compositions containing one or more of the compounds of the present invention.

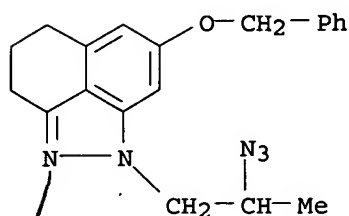
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 477965-81-4P, 1-(2-Azidopropyl)-7-benzyloxy-1,3,4,5-tetrahydrobenzo[cd]indazole

(intermediate; preparation of novel fused indazoles and indoles with 5-HT<sub>2</sub> receptor activity for use in the treatment of glaucoma)

RN 477965-81-4 USPATFULL

CN Benz[cd]indazole, 1-(2-azidopropyl)-1,3,4,5-tetrahydro-7-(phenylmethoxy)-(9CI) (CA INDEX NAME)



=> d l16 bib abs hitrn fhitr tot

L16 ANSWER 1 OF 10 USPATFULL on STN

AN 2004:133936 USPATFULL

TI Method of preventing or treating atherosclerosis or restenosis

IN Wathen, Michael W., Thousand Oaks, CA, UNITED STATES

Wathen, Lynne K., Thousand Oaks, CA, UNITED STATES

PI US 2004102473 A1 20040527

AI US 2003-651216 A1 20030828 (10)

PRAI US 2002-407090P 20020830 (60)

DT Utility

FS APPLICATION

LREP FLYNN, THIEL, BOUTELL & TANIS, P.C., 2026 RAMBLING ROAD, KALAMAZOO, MI, 49008-1699

CLMN Number of Claims: 27

ECL Exemplary Claim: 1

DRWN No Drawings

LN.CNT 2636

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention provides a method of treating atherosclerosis or restenosis in a mammal which comprises administering to said mammal an effective amount of a compound selected from the group consisting of structures of Formulae I, I' and II, ##STR1##

wherein the substituents on the Formulae are as defined herein.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 388122-12-1 388122-13-2 388122-14-3

388122-15-4 388122-16-5

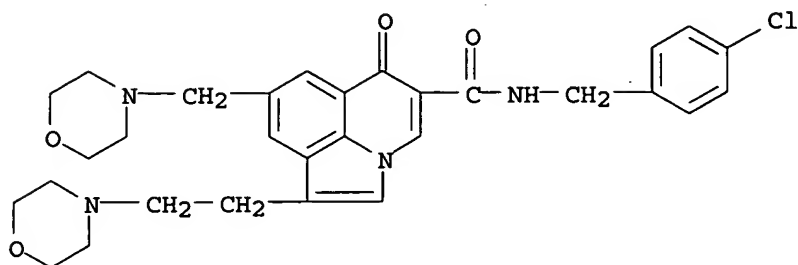
(heterocyclic carboxamide compds. for preventing or treating atherosclerosis or restenosis)

IT 388122-12-1

(heterocyclic carboxamide compds. for preventing or treating  
atherosclerosis or restenosis)

RN 388122-12-1 USPATFULL

CN 6H-Pyrrolo[3,2,1-ij]quinoline-5-carboxamide, N-[(4-chlorophenyl)methyl]-1-[2-(4-morpholinyl)ethyl]-8-(4-morpholinylmethyl)-6-oxo- (9CI) (CA INDEX NAME)



L16 ANSWER 2 OF 10 USPATFULL on STN

AN 2003:325044 USPATFULL

TI Agents and methods for the treatment of proliferative diseases

IN Al-Awar, Rima Salim, Raleigh, NC, UNITED STATES

Hecker, Kyle Andrew, Indianapolis, IN, UNITED STATES

Ray, James Edward, Indianapolis, IN, UNITED STATES

Huang, Jianping, Carmel, IN, UNITED STATES

Joseph, Sajjan, Indianapolis, IN, UNITED STATES

Li, Tiechao, Fishers, IN, UNITED STATES

Paal, Michael, Hamburg, GERMANY, FEDERAL REPUBLIC OF

Rathnachalam, Radhakrishnan, Carmel, IN, UNITED STATES

Shih, Chuan, Carmel, IN, UNITED STATES

Waid, Philip Parker, Indianapolis, IN, UNITED STATES

Zhou, Xun, Carmel, IN, UNITED STATES

Zhu, Guoxin, Noblesville, IN, UNITED STATES

PI US 2003229026 A1 20031211

AI US 2002-130493 A1 20021202 (10)

WO 2000-US33273 20001218

DT Utility

FS APPLICATION

LREP ELI LILLY AND COMPANY, PATENT DIVISION, P.O. BOX 6288, INDIANAPOLIS, IN, 46206-6288

CLMN Number of Claims: 10

ECL Exemplary Claim: 1

DRWN No Drawings

LN.CNT 5779

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention provides selective kinase inhibitors of formula (I). ##STR1##

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 345264-47-3P

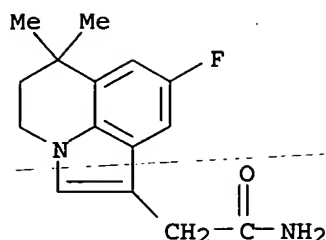
(preparation of 11H,12H,14H-pyrrolo[3,4-c]quinolino[8',8a',1':3,2,1]-pyrrolo[2,3-a]carbazole-5,7-diones for the treatment of proliferative diseases)

IT 345264-47-3P

(preparation of 11H,12H,14H-pyrrolo[3,4-c]quinolino[8',8a',1':3,2,1]-pyrrolo[2,3-a]carbazole-5,7-diones for the treatment of proliferative diseases)

RN 345264-47-3 USPATFULL

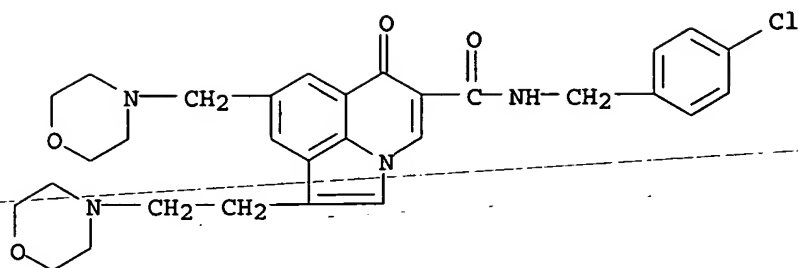
CN 4H-Pyrrolo[3,2,1-ij]quinoline-1-acetamide, 8-fluoro-5,6-dihydro-6,6-dimethyl- (9CI) (CA INDEX NAME)



L16 ANSWER 3 OF 10 USPATFULL on STN  
 AN 2003:220270 USPATFULL  
 TI Pyrroloquinolones as antiviral agents  
 IN Vaillancourt, Valerie A., Kalamazoo, MI, UNITED STATES  
 Staley, Sandra, Kalamazoo, MI, UNITED STATES  
 Huang, Audris, Irvine, CA, UNITED STATES  
 Nugent, Richard Allen, Galesburg, MI, UNITED STATES  
 Chen, Ke, Kalamazoo, MI, UNITED STATES  
 Nair, Sajiv K., Portage, MI, UNITED STATES  
 Nieman, James A., Galesburg, MI, UNITED STATES  
 Strohbach, Joseph Walter, Mendon, MI, UNITED STATES  
 PI US 2003153561 A1 20030814  
 US 6683181 B2 20040127  
 AI US 2002-288117 A1 20021105 (10)  
 RLI Division of Ser. No. US 2001-888283, filed on 22 Jun 2001, GRANTED, Pat.  
 No. US 6525049  
 PRAI US 2000-215986P 20000705 (60)  
 US 2001-277012P 20010319 (60)  
 DT Utility  
 FS APPLICATION  
 LREP Jonathan P. O'Brien, Pharmacia & Upjohn Company, Global Intellectual  
 Property, 301 Henrietta Street, Kalamazoo, MI, 49001  
 CLMN Number of Claims: 46  
 ECL Exemplary Claim: 1  
 DRWN No Drawings  
 LN.CNT 2081  
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.  
 AB The present invention provides a compound of formula I ##STR1##

which is useful as antiviral agents, in particular, as agents against  
 viruses of the herpes family.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.  
 IT 388122-12-1P 388122-13-2P 388122-14-3P  
 388122-15-4P 388122-16-5P  
 (preparation of pyrroloquinolones as viral DNA polymerase inhibitors for  
 antiviral agents)  
 IT 388122-12-1P  
 (preparation of pyrroloquinolones as viral DNA polymerase inhibitors for  
 antiviral agents)  
 RN 388122-12-1 USPATFULL  
 CN 6H-Pyrrolo[3,2,1-ij]quinoline-5-carboxamide, N-[(4-chlorophenyl)methyl]-1-  
 [2-(4-morpholinyl)ethyl]-8-(4-morpholinylmethyl)-6-oxo- (9CI) (CA INDEX  
 NAME)

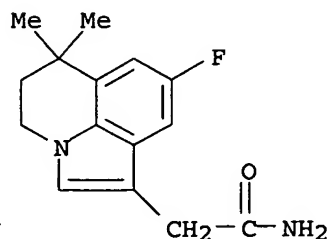


L16 ANSWER 4 OF 10 USPATFULL on STN  
 AN 2003:134587 USPATFULL  
 TI Agents and method for the treatment of proliferative diseases  
 IN Al-Awar, Rima Salim, Raleigh, NC, UNITED STATES  
 Hecker, Kyle Andrew, Indianapolis, IN, UNITED STATES  
 Huang, Jianping, Carmel, IN, UNITED STATES  
 Joseph, Sajjan, Indianapolis, IN, UNITED STATES  
 Ray, James Edward, Indianapolis, IN, UNITED STATES  
 Waid, Philip Parker, Indianapolis, IN, UNITED STATES  
 PI US 2003092676 A1 20030515  
 US 6743785 B2 20040601  
 AI US 2002-130801 A1 20020521 (10)  
 WO 2000-US33274 20001218  
 DT Utility  
 FS APPLICATION  
 LREP ELI LILLY AND COMPANY, PATENT DIVISION, P.O. BOX 6288, INDIANAPOLIS, IN,  
 46206-6288  
 CLMN Number of Claims: 10  
 ECL Exemplary Claim: 1  
 DRWN No Drawings  
 LN.CNT 2812  
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.  
 AB ##STR1##

The present invention provides selective kinase inhibitors of formula (I).

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

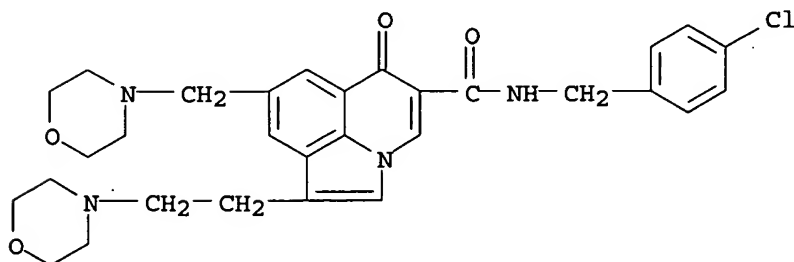
IT 345264-47-3P  
 (preparation of maleimide and carbazole derivs. for the treatment of  
 proliferative diseases)  
 IT 345264-47-3P  
 (preparation of maleimide and carbazole derivs. for the treatment of  
 proliferative diseases)  
 RN 345264-47-3 USPATFULL  
 CN 4H-Pyrrolo[3,2,1-ij]quinoline-1-acetamide, 8-fluoro-5,6-dihydro-6,6-  
 dimethyl- (9CI) (CA INDEX NAME)



L16 ANSWER 5 OF 10 USPATFULL on STN  
 AN 2002:106425 USPATFULL  
 TI Pyrroloquinolones as antiviral agents  
 IN Vaillancourt, Valerie A., Kalamazoo, MI, UNITED STATES  
 Staley, Sandra, Kalamazoo, MI, UNITED STATES  
 Huang, Audris, Irvine, CA, UNITED STATES  
 Nugent, Richard-Allen, Galesburg, MI, UNITED STATES  
 Chen, Ke, Kalamazoo, MI, UNITED STATES  
 Nair, Sajiv K., Portage, MI, UNITED STATES  
 Nieman, James A., Galesburg, MI, UNITED STATES  
 Strohbach, Joseph W., Mendon, MI, UNITED STATES  
 PI US 2002055636 A1 20020509  
 US 6525049 B2 20030225  
 AI US 2001-888283 A1 20010622 (9)  
 PRAI US 2000-215986P 20000705 (60)  
 US 2001-277012P 20010319 (60)  
 DT Utility  
 FS APPLICATION  
 LREP Lucy X. Yang, Pharmacia & Upjohn Company, Global Intellectual Property,  
 301 Henrietta Street, Kalamazoo, MI, 49001  
 CLMN Number of Claims: 46  
 ECL Exemplary Claim: 1  
 DRWN No Drawings  
 LN.CNT 2077  
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.  
 AB The present invention provides a compound of formula I ##STR1##

which is useful as antiviral agents, in particular, as agents against  
 viruses of the herpes family.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.  
 IT 388122-12-1P 388122-13-2P 388122-14-3P  
 388122-15-4P 388122-16-5P  
 (preparation of pyrroloquinolones as viral DNA polymerase inhibitors for  
 antiviral agents)  
 IT 388122-12-1P  
 (preparation of pyrroloquinolones as viral DNA polymerase inhibitors for  
 antiviral agents)  
 RN 388122-12-1 USPATFULL  
 CN 6H-Pyrrolo[3,2,1-ij]quinoline-5-carboxamide, N-[(4-chlorophenyl)methyl]-1-  
 [2-(4-morpholinyl)ethyl]-8-(4-morpholinylmethyl)-6-oxo- (9CI) (CA INDEX  
 NAME)



L16 ANSWER 6 OF 10 USPATFULL on STN  
 AN 94:55544 USPATFULL  
 TI 7-fused 2-(piperazinoalkyl) indole derivatives, intermediates and  
 compositions thereof  
 IN Jasserand, Daniel, Lyons, France  
 Paris, Dominique, Ambergueux en Dombes, France

Demonchaux, Patrice, Chatillon sur Chalaronne, France  
Cottin, Michel, Chatillon sur Chalaronne, France  
Floc'H, Francois, Limonest, France  
Dupassieux, Pierre, Chatillon sur Chalaronne, France  
White, Richard, Bourg en Bresse, France

PA Kali-Chemie Pharma GmbH, Hanover, Germany, Federal Republic of (non-U.S. corporation)

PI US-5324725- 19940628

AI US 1992-933476 19920821 (7)

PRAI DE 1991-4128015 19910823

DT Utility

FS Granted

EXNAM Primary Examiner: Shah, Mukund J.; Assistant Examiner: Datlow, Philip I.

LREP Evenson, McKeown, Edwards & Lenahan

CLMN Number of Claims: 10

ECL Exemplary Claim: 1,9

DRWN No Drawings

LN.CNT 3140

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Pharmacologically active compounds having anti-allergic properties corresponding to the formula I ##STR1## which can be mono- or disubstituted in the phenyl ring and their acid addition salts and/or S-mono- or dioxides of sulfur-containing compounds of the formula I are described, together with processes and intermediates for their preparation.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 148468-56-8P 148468-63-7P 148468-64-8P  
148468-65-9P 148468-67-1P 148468-68-2P  
148468-69-3P 148468-76-2P 148489-96-7P  
148489-97-8P 148490-00-0P 148490-10-2P  
148490-12-4P 148490-13-5P 148490-17-9P  
148490-22-6P 149542-51-8P

(preparation of, as allergy inhibitor and antiinflammatory)

IT 148490-16-8P

(preparation of, as intermediate for piperazinylalkylpyrroloquinoline allergy inhibitor and antiinflammatory)

IT 148490-14-6P

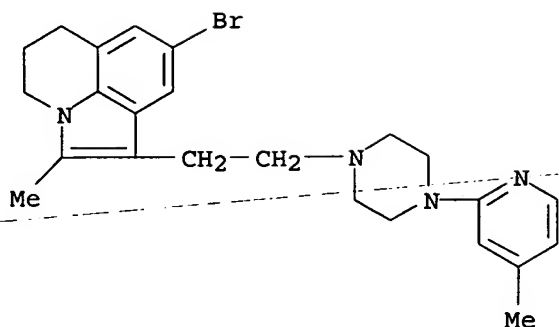
(preparation of, as intermediate for piperazinylalkylpyrroloquinoline allergy inhibitor and antiinflammatory)

IT 148468-56-8P

(preparation of, as allergy inhibitor and antiinflammatory)

RN 148468-56-8 USPATFULL

CN 4H-Pyrrolo[3,2,1-ij]quinoline, 8-bromo-5,6-dihydro-2-methyl-1-[2-[4-(4-methyl-2-pyridinyl)-1-piperazinyl]ethyl]-, trihydrochloride (9CI) (CA INDEX NAME)



● 3 HCl

L16 ANSWER 7 OF 10 USPATFULL on STN  
 AN 88:36125 USPATFULL  
 TI Process for the manufacture of spiro-linked pyrrolidine 2,5-diones  
 IN Masuzawa, Kuniyoshi, Koga, Japan  
 Okamura, Kyuya, Ohmiya, Japan  
 Fujimori, Shizuyoshi, Tochigi, Japan  
 Kinoshita, Susumu, Okaya, Japan  
 Matsukubo, Hiroshi, Okaya, Japan  
 PA Kyorin Pharmaceutical Co., Ltd., Tokyo, Japan (non-U.S. corporation)  
 PI US 4749789 19880607  
 AI US 1987-72004 19870710 (7)  
 PRAI JP 1986-161789 19860711  
 DT Utility  
 FS Granted  
 EXNAM Primary Examiner: Schwartz, Richard A.; Assistant Examiner: Richter, J.  
 LREP Oblon, Fisher, Spivak, McClelland & Maier  
 CLMN Number of Claims: 3  
 ECL Exemplary Claim: 1  
 DRWN No Drawings  
 LN.CNT 393

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

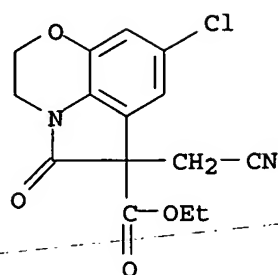
AB This invention relates to novel processes for the manufacture of spiro-linked pyrrolidine-2,5-diones of the formula; ##STR1## which have a potent inhibitory activity on aldose reductase and are useful for reduction and prevention of chronic diabetic complications.

The invented processes are useful as improved and convenient method for a large scale manufacture.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 113770-19-7P 113770-20-0P  
 (preparation of, as aldose reductase inhibitor intermediate)  
 IT 113770-19-7P  
 (preparation of, as aldose reductase inhibitor intermediate)  
 RN 113770-19-7 USPATFULL  
 CN Pyrrolo[1,2,3-de]-1,4-benzoxazine-6-carboxylic acid, 8-chloro-6-(cyanomethyl)-2,3,5,6-tetrahydro-5-oxo-, ethyl ester (9CI) (CA INDEX NAME)





L16 ANSWER 8 OF 10 USPAT2 on STN

AN 2003:220270 USPAT2

TI Pyrroloquinolones as antiviral agents

IN Vaillancourt, Valerie A., Kalamazoo, MI, United States

Staley, Sandra, Kalamazoo, MI, United States

Huang, Audris, Irvine, CA, United States

Nugent, Richard Allen, Galesburg, MI, United States

Chen, Ke, Kalamazoo, MI, United States

Nair, Sajiv K., Portage, MI, United States

Nieman, James A., Galesburg, MI, United States

Strohbach, Joseph Walter, Mendon, MI, United States

PA Pharmacia and Upjohn Company, Kalamazoo, MI, United States (U.S. corporation)

PI US 6683181 B2 20040127

AI US 2002-288117 20021105 (10)

RLI Division of Ser. No. US 2001-888283, filed on 22 Jun 2001, now patented, Pat. No. US 6525049

PRAI US 2000-215986P 20000705 (60)

US 2001-277012P 20010319 (60)

DT Utility

FS GRANTED

EXNAM Primary Examiner: Huang, Evelyn Mei

LREP Yang, Lucy X., O'Brien, Jonathan P.

CLMN Number of Claims: 7

ECL Exemplary Claim: 1

DRWN 0 Drawing Figure(s); 0 Drawing Page(s)

LN.CNT 1711

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention provides a compound of formula I ##STR1##

which is useful as antiviral agents, in particular, as agents against viruses of the herpes family.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 388122-12-1P 388122-13-2P 388122-14-3P

388122-15-4P 388122-16-5P

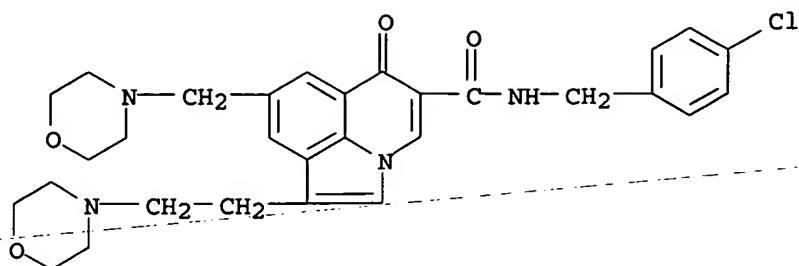
(preparation of pyrroloquinolones as viral DNA polymerase inhibitors for antiviral agents)

IT 388122-12-1P

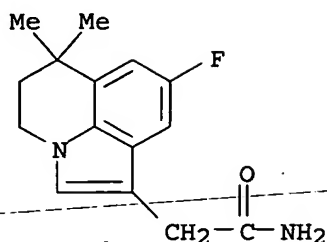
(preparation of pyrroloquinolones as viral DNA polymerase inhibitors for antiviral agents)

RN 388122-12-1 USPAT2

CN 6H-Pyrrolo[3,2,1-ij]quinoline-5-carboxamide, N-[(4-chlorophenyl)methyl]-1-[2-(4-morpholinyl)ethyl]-8-(4-morpholinylmethyl)-6-oxo- (9CI) (CA INDEX NAME)



L16 ANSWER 9 OF 10 USPAT2 on STN  
 AN 2003:134587 USPAT2  
 TI Agents and methods for the treatment of proliferative diseases  
 IN Al-Awar, Rima Salim, Raleigh, NC, United States  
 Hecker, Kyle Andrew, Indianapolis, IN, United States  
 Huang, Jianping, Carmel, IN, United States  
 Joseph, Sajjan, Indianapolis, IN, United States  
 Ray, James Edward, Indianapolis, IN, United States  
 Waid, Philip Parker, Indianapolis, IN, United States  
 PA Eli Lilly and Company, Indianapolis, IN, United States (U.S. corporation)  
 PI US 6743785 B2 20040601  
 WO 2001044235 20010621  
 AI US 2002-130801 20020521 (10)  
 WO 2000-US33274 20001218  
 PRAI US 1999-171219P 19991216 (60)  
 US 1999-171269P 19991216 (60)  
 DT Utility  
 FS GRANTED  
 EXNAM Primary Examiner: Raymond, Richard L.; Assistant Examiner: Liu, Hong  
 LREP Tucker, Tina M.  
 CLMN Number of Claims: 10  
 ECL Exemplary Claim: 1  
 DRWN 0 Drawing Figure(s); 0 Drawing Page(s)  
 LN.CNT 2732  
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.  
 AB The present invention provides selective kinase inhibitors of formula (I). ##STR1##  
  
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.  
 IT 345264-47-3P  
 (preparation of maleimide and carbazole derivs. for the treatment of proliferative diseases)  
 IT 345264-47-3P  
 (preparation of maleimide and carbazole derivs. for the treatment of proliferative diseases)  
 RN 345264-47-3 USPAT2  
 CN 4H-Pyrrolo[3,2,1-ij]quinoline-1-acetamide, 8-fluoro-5,6-dihydro-6,6-dimethyl- (9CI) (CA INDEX NAME)



L16 ANSWER 10 OF 10 USPAT2 on STN

AN 2002:106425 USPAT2

TI Pyrroloquinolones as antiviral agents

IN Vaillancourt, Valerie A., Kalamazoo, MI, United States

Staley, Sandra, Kalamazoo, MI, United States

Huang, Audris, Irvine, CA, United States

Nugent, Richard Allen, Galesburg, MI, United States

Chen, Ke, Kalamazoo, MI, United States

Nair, Sajiv K., Portage, MI, United States

Nieman, James A., Galesburg, MI, United States

Strohbach, Joseph Walter, Mendon, MI, United States

PA Pharmacia & Upjohn Company, Kalamazoo, MI, United States (U.S. corporation)

PI US 6525049 B2 20030225

AI US 2001-888283 20010622 (9)

PRAI US 2000-215986P 20000705 (60)

US 2001-277012P 20010319 (60)

DT Utility

FS GRANTED

EXNAM Primary Examiner: Huang, Evelyn Mei

LREP Yang, Lucy X., O'Brien, Jonathan P.

CLMN Number of Claims: 43

ECL Exemplary Claim: 1

DRWN 0 Drawing Figure(s); 0 Drawing Page(s)

LN.CNT 2039

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention provides a compound of formula I ##STR1##

which is useful as antiviral agents, in particular, as agents against viruses of the herpes family.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 388122-12-1P 388122-13-2P 388122-14-3P

388122-15-4P 388122-16-5P

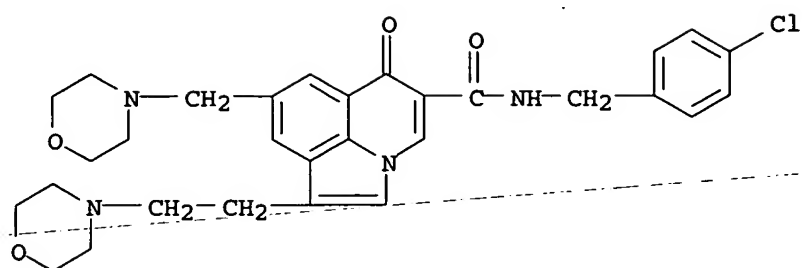
(preparation of pyrroloquinolones as viral DNA polymerase inhibitors for antiviral agents)

IT 388122-12-1P

(preparation of pyrroloquinolones as viral DNA polymerase inhibitors for antiviral agents)

RN 388122-12-1 USPAT2

CN 6H-Pyrrolo[3,2,1-ij]quinoline-5-carboxamide, N-[(4-chlorophenyl)methyl]-1-[2-(4-morpholinyl)ethyl]-8-(4-morpholinylmethyl)-6-oxo- (9CI) (CA INDEX NAME)



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